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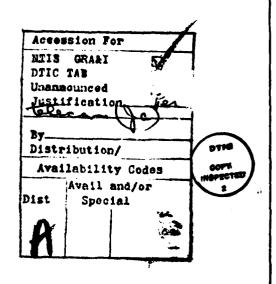
ABSTRACT (Continue on reverse side if necessary and identify by block number)

This report presents the results of archaeological investigations conducted by North Texas State University at two Corps of Engineers reservoirs on the San Gabriel River in Central Texas. The archaeology project consisted of site survey, evaluation, and data recovery of endangered cultural resources at North Fork and Granger Reservoirs. Eighty new prehistoric and one hundred historic sites were recorded, of which nine prehistoric and thirteen historic sites had further study. Additional research involved the Hoxie Ranch, and evaluations

DD 1/44 73 1473 EDITION OF 1 NOV 68 IS OBSOLETE of a Paleo-Indian site (41WM419), and the Cervenka Site (41WM267).

The two reservoirs, locatedin different environmental zones, offered an opportunity to examin varying human adaptations. First, the cultural patterns of the two reservoirs were delineated. Next, the adaptive patterns and artifact assemblages were compared to determine if the two reservoirs were part of the same cultural area.

Contributions to Central Texas archaeology include: 1) the chronology of human occupation has been augmented by thirty-seven new radiocarbon dates; 2) an alternative to current models of prehistoric adaptation for the area is proposed; 3) an interpretation of the occurrence of burned rock middens has been presented; 4) an evaluation of the "phase" concept in Central Texas indicated the geographical boundaries of the phases varied through time.



ARCHAEOLOGICAL INVESTIGATIONS
AT THE
SAN GABRIEL RESERVOIR DISTRICTS,
CENTRAL TEXAS

VOLUME 3

Archaeology Program
Institute of Applied Sciences
North Texas State University
Denton, Texas

Appendix A: Plant Species List

The following list of plant species is based on specimens collected from the North Fork and Granger Reservoir study areas. While it is incomplete, most of the prominent species are included. The order is phylogenetic by family, following a modified Engler and Prantl system; genus and species are listed alphabetically. Preferred vernacular names are listed in parenthesis. In addition, plant occurrences in the major vegetation areas are indicated by letter codes.

The following reference keys were consulted: Correll and Johnston 1970; Gould 1978; Vines 1960.

LEGEND

North Fork Reservoir

U = Uplands

S = Slopes

T - Alluvial Terraces (Rangeland species)

W = Mesic Woodland

R = Riparian / stockponds

Sp = Seep Springs / protected wet habitats

D = Draws and slopes of ephemeral canyon drainages

Granger Reservoir

R = Riparian / stockponds

W = Mesic Woodland

B = Bottomiand / Floodplain (old-field / rangeland)

P = Prairie association

		A 0
Malinadaana /Viin Samal	North Fork	Granger A-2
Polypodiaceae (True ferns) <u>Adiantum capillus</u> -veneris L. (venus maidenhair)	•	
Cheilanthes sp. Sw. (lipfern)	Sq S	~
Notholaena dealbata (Pursh) Kunze (powdery cloakfern)	-	
Pellaga atropurpurea (L.) Link (purpole cliff brake)	s,u	_
Thelypteris kunthii (Desv.) Morton (southern shield fern)	\$	~
	\$q	-
Pinaceae (Pine family)		
Juniperus ashei Buchh. (post cedar)	W,S,U	
	-1010	~
Ephedraceae (Ephedra family)		
Ephedra antisyphilitica C.A. Mey. (Clapmeed)	U	
	•	_
Typhaceae (Cat-tail family)		
Typha latifolia L. (common cat-tail)	R (ponds)	R (ponds)
	" (ppiles)	v (hours)
Potamogetonaceae (Pondweed family)		
Potamogeton spp. L. (Pondweed)	R (ponds)	
	·· (pon25)	-
Hydrocharitaceae (Frog's-bit family)		
Egeria densa Planch.	R (ponds)	R (ponds)
	,	(γ2)
Gramineae (Grasses)		
Agrostis hiemalis (Walt.) B.S.P. (winter bentgrass)	~	P
Andropogon gerardii Vitman. var. gerardii (big bluestem)	7,0	в,Р
Andropogon glomeratus (Walt.) B.S.P. (bushy bluestem)	~	B .
Aristida desmantha Trin. & Rupr.	~	8
Aristida glauca (Nees.) Walp. (blue three-awn)	ד, ע	<u>~</u>
Aristida longiseta Steud, (red three-awn)	s.u	
Aristida oligantha Michx. (prairie three-awn)	7	P
Aristida purpurea Nutt. (Purple three-sun	Т	8
Arundo donax L. (giantreed)	~	R (ponds, drainages)
Bothriochloa ischaemum (L.) Keng. var. Songarica (Rupr.) Cellarier and		a. amages,
Harian (k.r. bluestem)	W.T	Р,В
Bothiochloa saccharoides (Sw. Rydb. var. COFFEYANE (Steud.) Gould.		
(silver bluestem)	T	B
Bouteloue curtipendula (Michx.) Torr. (side-oats gramm)	T.U.2	P
Boutelous hirsuts La. (heiry gramm)	s,u	-
Boutelous rigidiseta (Steud.) Hitchc. (texas gramm)	7,2	-
Browns japonicus Thumb. (japanese brome)	W,T	в.Р.М
Bromus unfoldides (Hilld.) H.B.K. (rescuegrass)	D,T	B,W
Suchine dactyloides (Nutt.) Engelm. (buffalogress)	1	-

** *** ********

	North Fork	Granger A-3
Gramineae (Grasses) cont.	u +	
<u>Cenchrus incertus</u> Curtis (coast sandbur) <u>Chasmanthium latifolium</u> (Michx.) Yates (inland sea oats)	W,T	B,P
	- т	В
Chloris verticillata Nutt. (tumble windmillgrass)	•	_
Cynodon dactylon (L.) Pers. (bermuda grass)	W,T	B,P
Dichanthelium lindheimeri (Nash) Gould. (lindheimer dichanthelium)	W.T	W
Elymus canadensis L. (canada wild-rye)	w,T	W,B
Eragrostis intermedia Hitchc. (plains lovegrass)	T	_
Eragrostis sessilispica Buckl. (tumble lovegrass)		P
Erioneuron pulchellum (H.B.K.) Tateoka (fluffgrass)	U 	_
Hordeum pusillum Nutt. var. pusilum (little barley)	W,T	8,P
Lolium nerenne L. (perennial ryegrass)	T	¥
Muhlenbergia lindehimeri Hitchc. (lindheimer muhly)	S.U 	-
Muhlenbergia reverchonii Vasey & Scribn. (seep muhly)	υ	_
Muhlenbergia sp.	_	P -
Panicum texanum Buckl. (texas panicum)	_	B
Panicum obtusum H.B.K. (vine-mesquite)	-	B,W
Paspalum dissectum (L.) L. (mudbank paspalum)	W	¥
Paspalum plicatulum Michx. (brownseed paspalum)	_	8
<u>Phalaris caroliniana</u> Walt. (carolina canarygrass)		B,P
Poa annua L. (annual bluegrass)	W	8,₩
Schizachyrium scoparium (Michx.) Nash var. frequens (F.T. Hubb) Gould (little bluestem)	s,u	P
Setaria geniculata (Lam.) Beauv. (knotroot bristlegrass)	D	W
Setaria reverchonii (Vasey) Pilger (reverchon bristlegrass)	S,T	_
Setaria scheelei (Steud.) Hitchc. (southwestern bristlegrass)	T,D	_
Setaria viridis (L.) Beauv. (green bristlegrass)		P
Sorghastrum avenaceum (Michx.) Nash (indiangrass)	S , U	P
Sorghum halepense (L.) Pers. (johnsongrass)	W,T	8,P
Sporobolus asper (Michx.) Kunth. var. asper (tall dropseed)	T,S	В
Sporobolus vaginaeflorus (.) Wood (poverty dropseed)	s,u	-
Stipa leucotricha (Trin. & Rupr.) texas wintergrass)	Т	B,P
Tridens muticus (Toff.) Nesh. (slim	s	_
Cyperaceae (Sedge family)		
Carex amphibola Steud. (amphibious sedges)	_	W
<u>Carex cherokeensis</u> Schwein. (cherokee sedge)		W
Carex microdonta T. & H. (littletooth sedge)	W,S	W
Carex planostachys Kunze. (dedar sedge)	S	_
Cyperus esculentus L. (yellow nut-grass)		W
Cyperus odoratus L. (fragrant flatsedge)	¥	W

Cyperaceae (Sedge family) cont.	North Fork	Granger
Cyperus uniflorus T. & H. (oneflower flatsedge)	w,s	W
Cyperus sp.		W
Eleocharis macrostachya Britton (largespike spikesedge)	W	
Eleocharis montevidensis Kunth. (sand spikesedge)	W,S	W
Bromeliaceae (Pine-apple family)		
Tillandsia recurvata L. (ballmoss)	W,S,U	_
Commelinaceae (Spiderwort family)		
Commelina erecta L. (hierba del pollo)	D,W,S	W
Tradescantia occidentalis (Britt.) Smyth. (prairie spiderwort)	W,T	B,W
Pontederiaceae (Pickerel-weed family)		
Heteranthera limosa (SW.) Willd. (mud plantain)	R(ponds)	_
Juncaceae (Rush family)		
Juncus bufonius L. (toad rush)	W.Sp	W
Juncus interior Wieg. (inland rush)	W,Sp,R(ponds)	_
Juncus so.	Sp	
Liliaceae (Lily family)		
Allium canadense L.var. canadense (canada garlic)		B,W
Allium canadense L. var. fraseri M. Ownbey (wild onion)	 W,S	
Allium drummondii Regel. (wild onion)	D.S.U	_
Allium sp.	U	_
Notina lindheimeriana (Scheele) Wats. (devil's shoestring)	D,S	_
Nolina texana Wats. (sacahuista)	S	_
Nothoscordum bivalve (L.) Britt. (crow-pgison)	D,S	8,P
Schoenocaulon texanum Scheele (texas sabadilla)	W	
Smilax bona-nox L. (cat-brier)	W.S.U.T	B.W
Smilax rotundifolia L. (common green-brier)	S	W
Yucca arkansana Trel. (arkansas yucca)	\$, U	P
Yucca rupicola Scheele (twisted leaf yucca)	S,U,T	_
Zigadenus sp. Michx. (death camus)	Ť	
Iridaceae (Iris family)		
Nemestylis geminiflore Hutt. (prairie pleatleaf)	T	B,P
Sisyrinchium ensigerum Bickn. (swordleaf blue-eyed grass)	w,s	
Sisyrinchium sp. L. (blue-eyed grass)		W

	North Fork	A-5 Granger
Salicaceae (Willow family)		
Populus deltoids Marsh. (eastern cottonwood)	R	R,W
Salix <u>interior</u> Rowlee. (sandbar willow)	_	R
<u>Salix nigra</u> Marsh var. lindheimeri Schneid. (lindheimer's black willow)		R
Salix nigra Marsh. var. nigra (black willow)	R	W,R
Juglandaceae (Walnut family)		
Carya illinoinensis (Wang.) Koch (pecan	W,S,D	W
Carya sp. Nutt. (hickory)	W,S,D	W
Juglans major (Torr.) Heller. (arizone walnut)	W.S.D.Sp	W
Fagaceae (Beech family)		
Quercus mac <u>rocarpa</u> Michx. (bur oak)	W.S.D	Ų
Quercus marilandica Muenchh. (blackjack oak)	W.S	-
Quercus marilandica x Q. texana	S	_
Quercus muehlengergii Engelm. (chinkapin oak)	D,Sp	_
Quercus shumardii Buckl. (southern red oak)	D.S	
Quercus sinuata var. breviloba (Torr.) C.H. Mull. (white shin oak)	s	-
Quercus texana Bucki. (texas red oak)	D,S	W
Quercus virginiana var. fusiformis (Small) Sarg. (scrublive oak)	W,S,U	_
Ulmaceae (Elm family)		
Celtis laevigata Willd. (texas sugarberry)		
Celtis reticulata Torr. (netleaf hackberry)		W
Ulmus alata Michx. (winged elm)	W,S,D	8,₩
Ulmus americana L. var. americana (american elm)		W
Ulmus crassifolia Nutt. (cedar elm)	W,D	B, W
Ulmus rubra Muhl. (slippery elm)	W,S,D	.
The state of the s	D,Sp	W
Moraceae		
Maclura pomifera (Raf.) Schneid. (osage orange)	_	W
Morus alba L. (white mulberry)	W,D,Sp	¥
Morus rubra L. (red mulberry)	D	W
Urticaceae (Nettle family)		
Parietaria obtusa Rydb. (hannerwort)	D	
	D	-
Loranthaceae (Mistletoe family)		
Phoradendron tomentosum (DC.) Gray. (Mistletoe)	W,S,U,D	W
Polygonaceae (Knotweed family)		
Erigonum ennum Nutt. (wild buckwheet)	ī	
Rumax altisaimus Mood. (pele dock)	· _	B,W

	North Fork	A-6 Grange:
Polygonaceae (Knotweed family) cont.		
Rumex crispus L. (yellow dock)	Ť	P
Amaranthaceae		
Amaranthus retroflexus L. (redroot amaranth)	T	W
Amaranthus Sp.	_	В
Froelichia gracilis (Hook.) Mog. (slender snake-cotton)	W	-
Phytolaccaceae (Pokeweed family)		
Phytolacca americana L. (pokeweed)	\$. T	8,P,W
		-, ,,,,
Caryophyllaceae (Pink family)		
Cerastium brachypodum (Engelm.) Robins. (mouse-ear)	\$, T	_
Paronychia sp. (whitlow-wort)	s	_
		_
Ranunculaceae (Crowfoot family)	•	
Anemone heterophylla Nutt. (tenpetal anemone)	S,T,D	B,W
Aquilegia canadensis L. (wild columbine)	Sp	-
<u>Clematis crispa</u> L. (blue jasmine)	_	W
Clematis drummondii T. & G. (texas virgin's bower)	S,D	
<u>Delphinium virescens</u> Nutt. var. macroceratilis (Rydb.) Cory. (plains larkspur)	Ť	u
(Construction of the Construction of the Const	•	•
Berberidaceae (Barberry family)		
Berberis trifoliolata Moric. (agarito)	U	
Papaveraceae (Poppy family)		
Argemone albiflora Hornem. subsp. texana Ownbey (white prickly poppy)	т	8.6
Corydalis aurea Willd. var. occidentalis Engelm.		
(scrambled eggs)	S,T	-
Cruciferee (Mustard family)		
Capsella bursa-pastoris (L.) Medic. (shepherd's purse)	T	B.P
Descurainia pinnata (Walt.) Britt. (tansymustard)	7	B,P
Draba cuneifolia Nutt. (wedgeleaf draba)	T	P
Lepidium virginicum L. var. virginicum (virginia pepperweed)	W.T	P.B
Lesquerella gracilis (Hook.) Wats. var. gracilis		. •
(lax bladderpod)	D	P
Lesquerelle recurvate (Gray) Wats.	D	_
Rorippa nasturtium-aquaticum (L.) Hayek. (water-cress)	Sp	-
Anna Anna (Anna Anna Anna A		
Crassulaceae (Orpine family)	• •	
Sedum nuttallianum Raf. (yellow store op)	T,S	-

	North Fork	Gr anger
Plantanaceae (Plane-tree family)		
Platanus occidentalis 1. (american sycamore)	R	R
Rosaceae (Rose family)		
Crataegus brazoria Sarg. (brazos hawthorne)	_	w ,
Crataegus sp. L.	W	W
Prunus mexicana Wats. (big-tree plum)	W,S,D	W
Prunus serotina Ehrh. (black cherry)	D	_
Rubus trivialis Mcx. (southern dewberry)	W.S	P.B.W
Leguminosae		
Astragalus sp. L. (loco weed)	Т	8
Cassia roemeriana Scheele. (two-leaved senna)	T	_
Cercis canadensis L. var. texensis (Wats.) Rose (texas redbud)	S,D	_
Eysenhardtia texana Scheele (texas kidneywood)	U	
Indigofera miniata Ort. (scarlet pea)	7	
Medicago lupulina L. (black medic)	W	8,P
Medicago minima (L.) L. (small bur-clover)	S,U,D	
Medicago polymorpha L. var. vulgaris (Benth.) Shinners (bur-clover)	W	В
Melilotus officinalis (L.) Lam. (yellow sweet clover)	W	8,P
Prosopis glandulosa Torr. var. glandulosa (honey mesquite)	W	В,Р
Robinia sp. L. (locust)	-	W
Schrankia roemeriana (Scheele) Blank (roemer sensitivebriar)	¥	В,Р
Sesbania drummondii (Rydb.) Cory (rattlebeam)		W
Sophora affinis T.&G. (eve's necklace)	U	-
<u>Vicia ludovicinana</u> Nutt. (deer pea vetch)	W.S.D	8,P
Geraniaceae (Geraninum family)		
Erodium texanum Gray. (stork's bill)	T,D	B,P,W
Geranium carolinianum L. (carolina cranesbill)	S,T,D	W,B
Geranium texanum (Trel.) Heller. (texas Cranesbill)	~	8
Oxalidaceae (Wood-sorrel family)		
Oxalis drummondii Gray. (wood-sorrel)	T.2	_
Oxalis dillenti Jacq. (wood-sorrel)	0,7,2	8
Rutaceae (citrus family)		
Ptelea trifoliata L. (wafer-ash)	¢ n u	¥
Zanthoxylum clava-herculis L. (hercules-club)	S.D.W	-
ASSESSMENT CONTESTED C. (SECULES-CIVE)	-	W

		A
	North Fork	Granger
Meliaceae (Mahogany family)		
<u>Melia</u> <u>azedarach</u> L. (chinaberry tree)	_	B,W
Polygalaceae (milkwort family)		
Polygala alba Nutt. (white milkwort)	T,D	
		_
Euphorbiacea (Spurge family)		
Acalypha monococca (Engelm.) L. Mill (copperleaf)	S	_
Acalypha ostryaefolia Ridd. (hophorn-beam copperleaf)	Ť	B.W
<u>Cnidosculus</u> <u>texanus</u> (muell. Arg.) Small. (texas bullnettle)	T,U	B,P
<u>Croton lindheimerianus</u> Scheele	7	P
<u>Croton monanthogynus</u> Michx. (prairie tea)	T,U	8
Euphorbia bicolor Engelm & Gray. (snow-on-the-prairie)	_	W
<u>Euphorbia nutans</u> Lag. (eyebane)	U	W
<u>Euphorbia spathulata</u> Lam.		В
<u>Euphorbia sp.</u>	T	В
Stillingia texana I.M. Johnst.	U	_
Tragia sp.	-	W
Anacardiaceae (Sumac family)		
Rhus aromatica Ait.var. flabelliformis Shinners. (polecat bush)	W,S	_
Rhus lanceolata (Gray.) Britt. (flameleaf sumac)	W.T	
Rhus toxicodendron L. (poison ivy)	W	w
Rhus virens Gray. (evergreen sumac)	S,U,D	_
Aquifoliaceae (Holly family)		
<u>llex</u> <u>decidua</u> Walt. (possumhaw)	w,s	W
Aceraceae (Maple family)		
Acer negundo L. (boxelder)	-	W
<u>Acer saccharinum</u> L. (creek maple)	_	¥
Hippocastanaceae (Buckeye family)		
Aesculus arguta Buckl. (white buckeye)	S,D	
	•	
Sapindaceae (Soapberry family)		
Sapindus saponaria var. drummondii (H.&A.) L. Benson.		.
(western soapberry)	W,D,S	B,W
<u>Ungnadia speciosa</u> Endl. (mexican buckeye)	S,D	-
Rhammaceae (Buckthorn family)		
Rhammus caroliniana Walt. (indian-cherry)		**
presents carutiniana wort. (indian-cherry)	S,D	W

	North Fork	Granger
Vitaceae (Grape family)		
Parthenocissus quinquefolia (L.) Planch. (virginia creeper)	S,D	W
Vitis berlandieri Planch. (spanish grape)	S,D	-
Vitis mustangensis Buckl. (mustang grape)		W,B
Vitis rupestris Scheele. (sand grape)	S,D	_
Malvaceae (Mallow family)		
Abutilon incanum (Link.) Sweet. (indian mallow)	U,T	
Malvaviscus arboreus Cav. var. drummondii (T.86.) Schery (drummond waxmallow)	S,U,T,D	¥
Violaceae (Violet family)		
<u>Viola missouriensis</u> Greene. (missouri violet)	_	W
Viola pratincola Greene. (violet)	-	W,B
Cactaceae		
Echinocereus triglochidiatus Engelm. (claret-cup)	U	-
Opuntia lindheimeri Engelm. (texas prickly pear)	U	_
Opuntia macrorhiza Engelm. (plains prickly pear)	U	<u>—</u> р
O <u>puntia phaeacantha</u> Engelm. (brownspine prickly pear)	\$, U .	Y
Onagraceae (Evening primrose family)		
Gaura brachycarpa Small. (plains gaura)	-	В
Gaura suffulta Gray. (wild honeysuckle)	T	8
Qenothera speciosa Nutt. (showy primrose)	U,T	8,P
Stenosiphon linifolius (Nutt.) Heynh (false gaura)	S,D	В
Haloragaceae (Water-milfoil family)		
Myriophyllum spp. L. (water-milfoil)	R(ponds)	-
Umbelliferae (Parsely family)		
Apium leptophyllum (Pers.) F. Muell. (slimlobe celery)	_	W
Chaerophyllum tainturieri Hook. var. dasycarpum Mats. (hairyfruit chervil)	s,D	W
Chaerophyllum tainturieri var. tainturieri	S,D,T	W
Cymopterus macrorhizus Buckl. (bigroot wavewing)	7	B
Daucus carpta L. (wild carrot)	_	y,B
Daucus pusillus Michx. (rattlesnake-weed)	s,u,T	W,B,P
Erwingium leavenmorthii Torr. & Gray. (leavenmorth eryngo)	T,W	8,P
Hydrocotyle sp. i. (water-pennywort)	R	_
<u>Torilis armensis</u> (Huds.) Link. (hedge-parsley)	S,T,W	W.B.P

	North Fork	Granger
Cornaceae (Dogwood family)		
Cornus drummondii C.A. Mey. (rough leaf dogwood)	_	W
Cornus foemina Mill. (english dogwood)	W,S	W
Garrya lindheimeri Torr. (silk-tassel)	S.D	
Primulaceae (Primrose family)		
Samolus cuneatus Small. (water-pimpernel)	D	
Sapotaceae (Sapodilla family)		
Bumelia lanuginosa (Michx.) Pers. (ironwood)	S,W	W,B
Ebenaceae (Ebony family)		
<u>Diospyros texana</u> Scheele. (mexican persimmon)	S,U,W	
Oleaceae (Olive family)		
Forestiera pubescens Nutt. (elbow-bush)	₩,S,T,D	8,7
Fraxinus pensylvanica Marsh. (red ash)	W,S	W
Fraxinus texensis (Gray.) Sarg. (texas ash)	S,D	
Menodora heterophylla Moric. (low menodora)	s	<u>—</u> В
Gentianaceae (Gentian family)		
Centaurium calycosum (Buckl.) Fern var. calycosum (rosita)	D	<u> </u>
<u>Centaurium texense</u> (Griseb.) Fern. (lady bird's centaury)	S	P
Asclepiadaceae (Milkweed family)		
Asclepias asperula (Done.) Woods. (spider antelopehorn)	U,T	
Asclepias tuberosa L. (butterfly milkweed)	τ	8,P
Matelea sp. Aubl. (milkvine)	0,Sp	
Convolvulaceae (Morning glory family)		
Convolvulus equitans Benth. (texas bindweed)	T	W,B
Dichondra sp. (ponyfoot)		8
Inompea trichocarpa Ell. (milkweed)		8,6
Polemoniaceae (Phlox family)		
Inompais rubra (L.) Wherry (texas plume)	S	_
Phlox pilosa Michx. (downy phlox)	D	W,B

	North Fork	Granger
Hydrophyllaceae (waterleaf family)		
Nama hispidum Gray. (rough nama)	s,T	w
Nemophila phacelioides Nutt. (baby blue-eyes)	W	¥
Phacelia congesta Hook.	T,2	B,P
Boraginaceae (Borage family)		
Heliotropium tenellum (Nutt.) Torr. (pasture heliotrope)	S,D	_
Heliotropium torrevi I.M. Johnst. (slimleaf heliotrope)	¥	~
Verbenaceae (Vervain family)		
Aloysia gratissima (Gill. & Hook.) Tronscoso (white brush)	D,U,2	
Phyla incisa Small. (texas frog-fruit)	T,W	B,P
Verbena bipinnatifida Nutt. (dakota vervain)	T,W,D	В,Р
Verbena halei Small. (texas vervain)	T,W,D	B.P
<u>Vert:na pumila</u> Rydb. (pink vervain)	T,D	В
Verbena sp.	τ	
Labiatae (Mint family)		
Brazoria scutellarioides Engelm & Gray (prairie brazoria)	T	_
Hedroma drummondii Benth.	s	P
<u>Hedeoma hispidum</u> Pursh. (mock pennyroyal) <u>Lamium amplexicaule</u> L. (henbit)	W T,D	B,P B,P,W
Marrubium sulgame L. (common horehound)	0,7,2	P
Mentha spicata L. (spearwint)	Sp	_
Monarda citriodora Cerv. (lemon beebalm)	S,T	P
Salvia farinacea Benth. (mealy sage)	T,D	B.P
Salvia roemertana Scheele. (cedar sage)	5, U	P
Salvia sp.	U	
Scutellaria drummondii Benth. (drummond skullcap)	S,T	B,P
Solanaceae (Nightshade family)		
Nicotiana glauca Grah. (tree tobacco)	D	¥
Physalis angulata L. (groundcherry)	τ	¥,8
Physalis sp.	T	_
Solanum dimidiatum Raf. (western horse-nettle)	T	
Solanum elaeagnifolium Cav. (silver-leaf nightshade)	T	8,7
Solanum rostratum Dun. (buffalo bur)	T	8,7

	North Fork	Granger
Scrophulariaceae (Figworth family)		
Castilleja purpurea (Nutt.) G. Don (prairie paintbrush)	T	8,P
Linaria texana Scheele (texas toad-flax)		В
Penstemon sp. (beard-tongue)	D	
<u>Verbascum</u> thapsus L. (flannel mullein)	T,U,Z	В,Р
Martyniaceae (Unicorn-plant family)		
Proboscidea louisianica (Mill.) Thell (common devil's claw)	T,N	
Acanthaceae (Acanthus family)		
Justicia americana (L. Vahl. (american water-willow)	W	W
Ruellia nudiflora (Gray.) Urban.	Ţ	W.B
Ruellia occidentalis (Gray.) Tharp. & Barkl.	s,u	
Plantaginaceae (Plantain family)		
Plantago patagonica Jacq. (plantain)	W	В
Plantago rhodosperma Ocne. (red-seeded plantain)	S,U,D	W,B
Plantago hookeriana Fisch & Mey. (tallow weed)	D	W
Rubiaceae (Madden family)		
Cephalanthus occidentalis L. (common buttonbush)	D	В
Galium aparine L. (catchweed bedstraw)	T,W,D	W,B,P
Galium circaezans Michx. (woods bedstraw)	W,D	_
Galium virgatum Nutt. (southwest bedstraw)	5,0	
Hedyotis acerosa Gray. (needleleaf bluets)	U	
Hedyotis sp. (bluets)	τ	
Caprifoliaceae (Honeysuckle family)		
Sambucus canadensis L. (common elder-berry)	D	_
<u>Viburnum rufidulum</u> Raf. (southern blackhaw)	5.0	W
Cucurbitaceae (Gourd family)		
Cucurbita foetidissima H.B.K. (buffalo-gourd)	T.D	W
<u>Ibervillea lindheimeri</u> (Gray.) Greene (lindheimer globeberry)	S.D	_
Campanulaceae (Bluebell family)		
Triodanis biflora (R.&P.) Greene	T,D	P
Triodanis perfoliata (L.) Nieuw. (venus' looking-glass)	T,W	8,P

	North Fork	A-13 Granger
Compositae (Sunflower family)		
Ambrosia psilostachya DC. (western ragweed)	_	В
Ambrosia trifida L. (giant ragueed)	T,D	W,B
Aster eulae Shinners.		В
Aster subulatus Michx. (hierba del marrano)	D,W	W,B
Aster texanus Burgess. (texas aster)	S,T	W,P
Baccharis neglecta Britt. (roosevelt weed)	T,W	В,Р
Baccharis texana (T.&G.) Gray (prairie baccharis)	T,D	***
Bidens laevis (L.) B.S.P. (smooth beggarticks)		T
Calyptocarpus vialis Less. (hierba del cabballo)	Т	_
Centaurea americana Nutt. (baset-flower)	Т	_
Chaetopappa bellidifolia (Gray & Engelm.) Shinners. (leastdaisy)	S,T,D	-
Chaetopappa effusa (Gray.) Shinners. (spreading leastdaisy)	υ,T	_
Chrysactinia mexicana Gray (damianita)	U	
Cirsium texanum Buckl. var. texanum (southern thistle)	Ţ	B,P
Cirsium undulatum (Nutt.) Spreng.	Т	
Convza canadensis (L.) Cronq. (horse-weed)	D	В
Coreopsis basilis (Otto & Dietr.) var. wrightii (Grey) Blake (rock coreopsis)	T	P
Dracopis amplexicaulis (Vahl.) Cass (coneflower)	T	В,Р
Engelmannia pinnatifida Nutt. (engelmann daisy)	U.T	8
Eupatorium havanense H.B.K. (shrubby boneset)	U	
Evax candida (T.&G.) Gray (silver rabbit-tobacco)		8
Evax prolifera DC. (bighead rabbit-tobacco)	_ T.D	
Gaillardia pulchella Foug. (indian blanket)	S,T	<u>—</u> Р
Gaillardia suavis (Gray & Engelm.) Britt & Rusby.	Ť	_
Gymnosperma glutinosa (Spreng.) Less. (tatalencho	s,u	_
Helenium amarum (Raf.) Rock. (bitterweed)	T	<u>—</u> В,Р
Helianthus annuus L. (common sunflower)	T	B,P
Hymenopappus scabiosaeus L'Her. var. corymbosus (T.&G.) Turner (old plainsman)	Ť	8,P
Iva angustifolia D.C. (sump-weed)	T	
Krigia oppositifolia Raf. (weedy dandelion)	_	В.
Lactuca ludoviciana (Nutt.) Ridd. (wild lettuce)	T.D.W	W,B,P
Hymenoxys scaposa (DC.) Parker, var. scaposa (bitterweed)	T,D	B,P
<u>Liatris</u> <u>mucronata</u> DC. (gayfeather)	v	
Lygodesmia texana (T.&G.) Greene (texas skeletonplant)	T,W	_
Melampodium leucanthum T.&G. var. leucanthum (plains blackfoot)	אי'ח	
Palafoxia callosa (Nutt.) T.&G.	D	_
Parthenium confertum Gray.	T,D	W
Parthenium hysterophorus L. (false ragueed)	T	P
Pinaropappus roseus Less var. roseus (rocklettuce)	T	_

		A-14
	North Fork	Granger
Pyrrhopappus grandiflorus (Nutt.) Nutt. (tuber false dandelion)	T	_
Pyrrhopappus multicaulis DC. (monystem false dandelion)	_	В,Р
Ratibida columnaris (Sims) D. Don. (mexican hot)	T,W	W,B,P
Rudbeckia hirta L. (brown-eyed susan)	T,D	B,P
Senecio imparipinnatus Klatt (groundsel)	_	В
Senecio obovatus Muhl. (golden groundsel)	т	
Solidago radula Nutt. (stiff goldenrod)	T	
Sonchus oleraceus L. (common sow thistle)	T	В
Taraxacum officinale Wiggers (common dandelion)	S,W,D	W,B
Thelesperma simplicifolium Gray (slender greenthread)	U,W	
Verbesina lindeheimeri Robins & Greenm. (lindheimer crown-beard)	S	
Verbesina virginica L. (frostweed)	Т	W,B
Vernonia lindheimer Gray & Engelm. (wooly ironweed)	T	В
Xanthium strumarium L. (cocklebur)	7	В

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Appendix B: Macrobotanical Remains

Excavation of the San Gabriel archaeological sites involved the systematic collection of matrix samples for the flotation recovery of macrobotanical remains. Samples were collected from the northwest quad of each arbitrary 10 cm. level of every excavation unit. Additional samples were taken from all features. All matrix samples were processed; only those samples which contained plant remains are listed. All other samples were devoid of macrobotanical remains.

North Fork Reservoir

Site 41WM53

Unit/Quad	Level	Taxon	Plant Part	Number Recovered	Whole	Fragment	Charred	Contaminant
97N/130W	4	Quercus sp.	acorn	1		Х	X	
NW4		Verbena sp.	seed	1	X			X
		Euphorbia sp.	seed	1	X			X
		Portulaca sp.	seeds	2	X			X
97N/130W	5	Cheno-am	seed	1	X		X	
NEX	_	Undetermined Disseminule	seed	1	X		X	
97N/130W Feature 6	6	Echinocerus sp.	seed	1	X		X	
97N/130W	6	Quercus sp.	acorn	1		X	X	
Feature 6		Undetermined Disseminule	seed	1	X		X	
Feature 6 X-Section	6	Quercus sp.	acorn	2		X	X	
98N/130W NE⅓		Quercus sp.	acorn			X	X	
99N/130W Feature 3	4	Quercus sp.	acorn	16		X	X	
Area B		Cheno-am	seed	1	X		X	
		Undetermined Disseminule	seed	1		X	X	
Feature 9 West ½		Chenopodium sp.	seed	1	X			X
		Acalypha sp.	seed	1	X			X
102N/127W Feature 4	2	Aster sp.	seed	1	X		X	

Unit/Quad	Level	Taxon	Plant Part	Number Recovered	Whole	Fragment	Charred	Contaminant
103N/127W Feature 4	2	Acalypha sp.	seeds	2	X			X
NW14		Euphorbia sp.	se e ds	2	X			X
Feature 4		Quercus sp.	acorn	2		X	X	
		Euphorbia sp.	se e ds	2	X			X
		Panicum sp.	seeds	2	X			X
103N/127W	2	Panicum sp.	seeds	2	X			X
Outside F-4		Euphorbia sp.	seed	1	X		X	
		Undetermined Disseminule	se e d	1	X		X	
Feature 4		Quercus sp.	acorn	7		X	X	
		Verbena sp.	seeds	2	X			X
103N/126W NW¾	3	Melilotus sp.	seed	1	X			X
Hawes Site ((41WM56)							
1041N/1106W Below F-2		Quercus sp.	acorn	1		X	X	
1042N/1105W NW¾	9	Cheno-am	seed	7	X		X	
1042N/1106W NW¾	2	Quercus sp.	acorn	7		X	X	
1045N/1092W NW¾	5	Chenopodium sp.	seed	1	X			X
1049N/1112W	2	Acalypha sp.	seeds	3	X			X
NW14		Euphorbia sp.	seeds	3	X			X
		Verbena sp.	seed	1	X			X

				Number Recovered		Fragment	Charred	Contaminant
Unit/Quad	Level	Taxon	Plant Part	Rec	Whole	Fra	Cha	Cont
1049N/1112W NW⅓	3	Acalypha sp.	seed	1	X			X
1050N/1111W	3	Quercus sp.	acorn	1		X	X	
NW4		Chenopodium sp.	seed	1	X			X
1050N/1111W NE¼	7	Juglans sp.	nut- shell	1		X	X	
1060N/1099W NW⅓	5	Quercus sp.	acorn	1		X	X	
1061N/1097W NW¾	4	<u>Opuntia</u> <u>sp</u> .	seed	1	X		X	
1061n/1098W NW4	9	<u>Carya</u> sp.	nut- shell	2		X	X	
1061N/1099W NW4	3	Quercus sp.	acorn	2		X	X	
1062N/1097W NW34	5	<u>Celtis</u> <u>sp</u> .	seed	1	X			X
1062N/1099W NW ¹ 4	5	<u>Carya sp</u> .	nut- shell	2		X	X	
1062N/1099W Under F-5	6	Chenopodium sp.	seed	1	X		X	
1062N/1100W	2	Quercus sp.	acorn	2		X	X	
NW4		Cheno-am	seed	1	X		X	
1062N/1100W N₩4	6	Quercus sp.	acorn	1		χ	X	
•		Undetermined Disseminule	seed	1	X		X	
1062N/1100W NW4	8	Quercus sp.	acorn	1		X	X	

Unit/Quad	Level	Taxon	Plant Part	Number Recovered	Whole	Fragment	Charred	Contaminant
1063N/1097W NW₄	3	Juniperus sp.	seed	1	X		X	
1063N/1098W NW¼	6	Opuntia sp.	seed	1		X	X	
1063N/1099W NW¥	6	Opuntia sp.	seed	1	X		X	
1063N/1100W NW¾	3	Opuntia sp.	seed	1	X		X	
Feature 6								
Feature 6	3	Opuntia sp.	seeds	2	X		X	
Feature 6	4	Opuntia sp.	seeds	11	X		X	
		Quercus sp.	acorn	6		X	X	
		Carya sp.	nut- shell	7		X	X	
		Undetermined Disseminule	seed	1		X	X	
1063N/1100W NW¾	4	Opuntia sp.	seeds	4	X		X	
Feature 6								
1063N/1100W NE¾	4	Amaranthus sp.	seeds	4	X			X
Feature 6								
1063N/1100W	4	Opuntia sp.	seed	1		X	X	
SE¾		Cheno-am	seed	1	X		X	
Feature 6								
1063N/1100W Feature 6	4	Quercus sp.	acorn	5		X	X	
1063N/1100W	5	Celtis sp.	seed	1	X			X
NWA		Rudbeckia sp.	seed	1	X			X
		Silene sp.	se e d	1	X			X

·····								
Unit/Quad	Level	Taxon	Plant Part	Number Recovered	Whole	Fragment	Charred	Contaminant
Feature 6	5	Opuntia sp.	seeds	2	Х		Х	
		Cheno-am	seed	1	X		X	
1063N/1100W NW¾	6	Opuntia sp.	seed	1		X	X	
1064N/1097W NW%	5	Celtis sp.	seed	1	X			X
1064N/1097W 1064N/1098W Feature 18	9	Quercus sp.	acorn	6		X	X	
1064N/1098W SE¼	5	Cheno-am	seed	1		X	X	
Below F-9								
1064N/1100W NW¾	6	Quercus sp.	acorn	2		X	X	
1064N/1100W NW4	7	Quercus sp.	acorn	3		X	X	
1064N/1100W NW%	7	Undetermined Disseminule	seed	1		X	X	·
<u>Site 41WM56</u>								
Feature 5		Juniperus sp.	seed	1	X		X	
		Chenopodium sp.	seed	1	X			X
Feature 5 East ½		Quercus sp.	acorn	2		X	X	
Feature 6		Celtis sp.	seed	1	X			X
North X-Sec		Quercus sp.	acorn	1		X	X	
Feature 6 South X-Sec		Amaranthus sp.	seeds	3	X			X
1019N/1022W Outside F-6	6	Quercus sp.	acorii	6		X	X	

Unit/Quad	Level	Taxon	Plant Part	Number Recovered	Whole	Fragment	Charred	Contaminant
			Part					<u> </u>
1019N/1022W	6	Quercus sp.	acorn	1		X	X	
Below F-6		Undetermined Disseminule	seed	1	X		X	
1020N/1021W	6	Quercus sp.	acorn	4		X	X	
1020N/1021W		Quercus sp.	acorn	3		X	X	
Feature 7		Carya sp.	nut- shell	2		X	X	
1020N/1021W		Quercus sp.	acorn	10		X	X	
Around F-7		Carya sp.	nut- shell	3		X	X	
		Celtis sp.	seeds	2	X			X
		Undetermined Disseminule	seed	1		X	X	
1020N/1021W Below F-7		Quercus sp.	acorn	3		X	X	
1018N/1024W	3	Quercus sp.	acorn	1		X	X	
Feature 4		Euphorbia sp.	seed	1	X			X
1018N/1021W	3	<u>Celtis</u> <u>sp</u> .	seed	1	X			X
		Amaranthus sp.	seed	1	X			X
		Euphorbia sp.	seeds	2	X			X
1050N/1035W	4	Quercus sp.	acorn	4		X	X	

Unit/Quad	Level	Taxon	Plant Part	Number Recovered	Whole	Fragment	Charred	Contaminant
					-			
Site 41WM73								
1039N/1034W NW1 ₄	2	Quercus sp.	acorn	14		X	X	
1040N/1048W NW¾	16	Quercus sp.	acorn	6		X	X	
1040N/1048W NW¾	17	Quercus sp.	acorn	11		X	X	
1040N/1048W NW⅓	18	Quercus sp.	acorn	7		X	X	
1040N/1048W	19	Quercus sp.	acorn	5		X	X	
NW ¹ 4		Chenopodium sp.	seed	1	X			X
		Undetermined Disseminule	seed	1		X	X	
1040N/1049W NW¾	14	Quercus sp.	acorn	7		X	X	
1040N/1049W NW⅓	15	Quercus sp.	acorn	6		X	X	
1040N/1049W	16	Quercus sp.	acorn	4		X	X	
NW ¹ á		<u>Celtis</u> <u>sp</u> .	seeds	2	X			X
1040N/1049W NW¾	16	Quercus sp.	acorņ	10		Х	X	
1040N/1049W	18	Quercus sp.	acorn	10		X	X	
NWa		<u>Celtis</u> <u>sp</u> .	seed	1	Х			X
1040N/1049W	19	Quercus sp.	acorn	11		X	X	
NW14		Undetermined Disseminules	seeds	2		X	X	
1040N/1050W	17	Quercus sp.	acorn	3		X	X	
N₩¾		Undetermined Disseminule	seed	1		X	X	

	······							
Unit/Quad	Level	Taxon	Plant Part	Number Recovered	Whole	Fragment	Charred	Contaminant
1040N/1051W 1041N/1051W Feature 2	15	Quercus sp.	acorn	2		X	X	
1040N/1051W 1041N/1051W Feature 2	15	Quercus sp.	acorn	3		X	X	
1040N/1051W NW⅓	16	Quercus sp.	acorn	4		X	X	
1041N/1048W SE4	14	Quercus sp.	acorn	2		X	X	
1041N/1048W NW¾	15	Quercus sp. Celtis sp. Undetermined Disseminule	acorn seeds seed	10 2 1	x	x x	x x	X
1041n/1048w NW%	16	Quercus sp.	acorn	10		X	X	
1041N/1048W SW4	16	Quercus sp.	acorn	14		X	X	
1041N/1048W NW¾	17	Quercus sp.	acorn	3		X	X	
1041N/1048W Feature 3 North ¹ 2	15	Quercus sp. Celtis sp.	acorn seeds	5 2	X	X	X	X
1041N/1048W Feature 3	16	Quercus sp. Undetermined Disseminule	acorn seed	10 1		X X	X X	
1040N/1048W Feature 3	17	Quercus sp.	acorn	11		X	X	
i Gutuli G		Undetermined Disseminule	seed	1		X	X	

Unit/Quad	Level	Taxon	Plant Part	Number Recovered	Whole	Fragment	Charred	Contaminant
1041N/1048W Feature 3	17	Quercus sp.	acorn	4		X	X	
1041N/1048W Feature 3 North½	17	Quercus sp.	acorn	7		X	X	
1041N/1049W NW4	11	Quercus sp.	acorn	2		X	X	
1041N/1049W NW¾	14	Quercus sp.	acorn	4		X	X	
1041N/1049W NW¾	16	Quercus sp.	acorn	7		X	X	
1041N/1049W NW¾	17	Quercus sp.	acorn	4		X	X	
1041N/1049W NW4	18	Quercus sp.	acorn	17		X	X	
		<u>Celtis</u> sp.	seeds	2	X			X
1041N/1049W NW¼	19	Quercus sp.	acorn	4		X	X	
1041N/1050W NW¾	6	Quercus sp.	acorn	6		X	X	
1041N/1050W NW⅓	9	Quercus sp.	acorn	8		X	X	
1041N/1050W NW4	11	Quercus sp.	acorn	7		X	X	
-		Juniperus sp.	se e d	1	X			X
1041N/1050W NW⅓	16	Quercus sp.	acorn	7		X	X	

			Plant	Number Recovered	ay .	Fragment	red	Contaminant
Unit/Quad	Level	Taxon	Part	Numb	Whole	Frag	Charred	Cont
1041N/1050W NW¾	17	Quercus sp.	acorn	4		X	X	
		Undetermined Disseminules	seeds	2		X	X	
1041n/1049W NW¾	17	Quercus sp.	acorn	4		X	X	
1041N/1049W NW¾	18	Quercus sp.	acorn	17		X	X	
		Celtis sp.	seeds	2	X			X
1041n/1049W NW¾	19	Quercus sp.	acorn	4		X	X	
1041n/1050W NW¾	6	Quercus sp.	acorn	6		X	X	
1041N/1050W NW¾	9	Quercus sp.	acorn	8		X	X	
1041n/1050W NW⅓	11	Quercus sp.	acorn	7		X	X	
1111/2		Juniperus sp.	seed	1	X			X
1041n/1050W NW¾	16	Quercus sp.	acorn	7		X	X	
1111/2		Juniperus sp.	seed	1	X			X
1041n/1050W NW¾	16	Quercus sp.	acorn	7		X	X	
1041n/1050W NW¾	17	Quercus sp.	acorn	4		X	X	
111174		Undetermined Disseminules	seeds	2		X	X	

Unit/Quad	[eve]	Taxon	Plant Part	Number Recovered	Whole	Fragment	Charred	Contaminant
<u>Site 41WM328</u>	<u>3</u>							
981N/1001W NW4	9	Quercus sp.	acorn	7		X	X	
981N/1001W NW4	17	Quercus sp.	acorn	8		X	X	
981N/1001W Feature 17	17	Quercus sp.	acorn	39		X	X	
readure 17		<u>Carya</u> sp.	nut- shell	5		X	X	
981N/1001W NW¼	18	Quercus sp.	acorn	8		X	X	
		Echinocerus sp.	seed	1	X		X	
981N/1002W N₩¾	9	Quercus sp.	acorn	6		X	X	
1111-4		Carya sp.	nut- shell	5		X	X	
		Echinocerus sp.	seed	1	X		X	
981N/1002W NW¾	17	Quercus sp.	acorn	4		X	X	
982N/1001W Feature 16	15	Quercus sp.	acorn	14		X	X	
982N/1001W NW¼	18	Quercus sp.	acorn	7		X	X	
982N/1002W	9-11	Juglans sp.	nut-	8		Х	X	
Feature 2 NW & SW		Carya sp.	shell nut- shell	7		X	X	
		Quercus sp.	acorn	75		χ	X	
		Undetermined Disseminules	seeds	2		X	X	
982N/1002W ทพ _ร	16	Quercus sp.	acorn	4		X	X	
982N/1002W NW4	18	Aster sp.	seed	1	X		X	

Unit/Quad	Lével	Taxon	Plant Part	Number Recovered	Whole	Fragment	Charred	Contaminant
982N/1002W NW3	19	Quercus sp.	acorn	4		X	X	
999N/1011W NW1/2	3	Juglans sp.	nut- shell	1		X	X	
999N/1011W Feature 6	3	Carya sp.	nut- shell	2		X	X	
SW4		Acalypha sp.	seeds	3	X			X
999N/1012W	3	Acalypha sp.	seed	1	X			X
NW3		Celtis sp.	seed	1	X			X
Feature 11	3	Acalypha sp.	seeds	5	X			X
1000N/1012W	3	Carya sp.	nut- shell	3		X	X	
NW3		Acalypha sp.	seed	7	X			X
1000N/1018W NW¼	5	Quercus sp.	acorn	2		X	X	
1001N/1010W SW%	2	Acalypha sp.	seeds	5	X			X
Feature 3	2	Acalypha sp.	seeds	6	X			X
1001N/1011W	3	Panicum sp.	seed	1	X		X	
Feature 3 SE½		Quercus sp.	acorn	3		X	X	
JLA		Acalypha sp.	seeds	5	X			X
1001N/1012W	3	Celtis sp.	seeds	2	X			X
Feature 4		Acalypha sp.	seed	1	X			X
Feature 13		Acalypha sp.	seeds	6	X			X

Granger Reservoir

Bryan Fox Site (41WM124)

Unit/Qua ^r	Level	Taxon	Plant Part	Number Recovered	Whole	Fragment	Charred	Contaminant
711N/833W	3	Quercus sp.	acorn	6		Х	Х	
813N/305W	5	Amaranthus sp.	seed	1	χ		.,	X
21.21.7	_	Euphorbia sp.	seeds	4	X			X
801N/8 05W	12	Unidentified Gramineae Family	seed	1		X	X	•
801N/804W	14	Unidentified Gramineae Family	seeds	2		X	X	
801N/804W	20	Elymus sp.	seed	1	χ		X	
		Unidentified Gramineae Family	seed	1	X		X	
801N/804W	25	Celtis sp.	seed	1	X			X
		Quercus sp.	acorn	5		X	X	
		Unidentified Gramineae Family	seeds	2		X	X	
301N/804W	26	Stipa sp.	seeds	2	X	X	χ	
		Quercus sp.	acorns	2		X	X	
		Unidentified Gramineae Family	seeds	9		X	X	
801N/804W	27	Unidentified Gramineae Family	seeds	3		X	X	
801N/804W	27	Unidentified Gramineae Family	seeds	3		X	X	

	—			ered		ent	þa	inant
Unit/Quad	Level	Taxon	Plant Part	Number Recovered	Whole	Fragment	Charred	Contaminant
801N/803W	6	Oxalis sp.	seed	1	X			X
801N/803W	10	Cheno-am	seed	1	X		X	
		Unidentified Gramineae Family	seed	ī		X	X	
801N/803W	11	Undetermined Disseminules	seeds	3		X	X	
801N/803W Feature 1	19	<u>Celtis</u> sp.	seeds	3	X			X
801N/803W	23	Celtis sp.	seed	1	X			X
801N/803W	25	Elymus sp.	seed	1	X		X	
		Quercus sp.	acorn	4		X	X	
801N/803W	28	Unidentified Gramineae Family	seeds	2		X	X	
801N/803W	30	Elymus sp.	seed	1	X		X	

In addition to these plant remains recovered by flotation, 801N/803W level 27 yielded 8 charred <u>Quercus sp.</u> acorn remains including 2 complete kernels, and level 28 contained 51 acorn fragments including 12 corn kernels. These acorns were recovered by standard excavation procedures.

Loeve-Fox	Site	(41WM230)
LUCYC . UN	9100	7 1111111111111111111111111111111111111

1014N/1000W XU3 F-31	fill	Elymus sp.	seeds	3		X	X
1028N/996W XU3 F-40	fill	<u>Astragalus sp.</u>	seed	1	X		X
AUS 1-40		Quercus sp.	acorn	2		X	X

Unit/Quad	Level	Taxon	Plant Part	Number Recovered	Whole	Fragment	Charred	Contaminant
		Panicum sp.	seeds	2	X		X	
		<u>Zizania</u> sp.	seed	1		X		
1028N/996W XU3 F-40	8	Rumex sp.	seed	1	X		X	
XU3 F-40		Euphorbia sp.	seed	1	X		X	
		<u>Vitis</u> sp.	s ee d	1	X		X	
		Panicum sp.	seeds	2	X		X	
		Undetermined Disseminules	seeds	3	X		X	
1028N/996W XU3 F-40	9	Undetermined Disseminule	seed	1	X		X	
1028 n/996W XU3 F- 4 0	10	Undetermined Disseminule	seed	1	X		X	
1030N/1002W XU3 F-42 NE Cell	6	Panicum sp.	s ee ds	6	X			X
1030N/998W XU3 F-45	6	Rumex sp.	seeds	2	X		X	
1022N/998W XU3 F-48 SW Cell	7	Carya sp.	nut- shell	1		X	X	
1022N/998W XU3 F-51 SW Cell	10	Elymus sp.	seed	1	X		X	
1020N/996W XU3 F-64	9	Elymus sp.	seeds	3	X	X	X	
NE & SE Cell		Phytolacca sp.	seed	1	X			X
1024N/998W	11	Panicum sp.	seed	1	X		X	
xU3 F-67 SE Cell		Ampelopsis sp.	seed	1	X		X	
· · ·		Helianthus sp.	seeds	2		X	X	
1022N/1000W XU3 F-69 SE Cell	11	Celtis sp.	seed	1	X			X

	-			r ered		ent	g	Contaminant
Unit/Quad	Level	Taxon	Plant Part	Number Recovered	Whole	 Fragment	Charred	Conta
1020N/1000W XU3 F-69 NE Cell	11	Rumex sp.	seed	1	X		X	
1020N/1000W XU3 F-69 NE Cell	12	Phytolacca sp.	seed	1		X	X	
1016N/998W XU3 F-70 NW Cell	17	Quercus sp.	acorn	4		X	X	
1016N/998W XU3 F-70 NW Cell	18	Quercus sp.	acorn	9		X	X	
1016N/998W XU3 F-70	19	Quercus sp.	acorn	4		X	X	
NW CELL		Elymus sp.	seeds	2		X	X	
1016N/998W XU3 F-70 Pedestal		Quercus sp.	acorn	10		X	X	
1024N/998W XU3 F-71 NE Cell	10	Unidentified Gramineae Family	seed	1		X	X	
1020N/1002W XU3 F-83 NW Cell	12	Quercus sp.	acorn	2		X	X	
1016N/9 98W XU3 F-102	23	Astragalus sp.	s ee d	1	X		X	
SE Cell		Elymus sp.	seed	1	X		X	
1049N/970W XU7 F-47 NW Cell	5	<u>Celtis</u> sp.	seed	1	X		X	
1049N/970W XU7 F-49 SE Cell	7	Quercus sp.	acorn	1		X	X	

Unit/Quad	Level	Taxon	Plant Part	Number Recovered	Whole	Fragment	Charred	Contaminant
1049N/970W XU7 F-49	8	Quercus sp.	acorn	1		X	X	
SW Cell		Undetermined Disseminule	seed	1		X	X	
1049N/970W XU7 F-49 SE Cell	8	Stipa sp.	seed	1		X	X	
998N/1012W XU7 F-54	7	Rumex sp. Unidentified	seeds	2	X		X	
NE Cell		Gramineae Family	seed	1	X		X	
1032N/936W XU5 F-72 SW Cell	9	Unidentified Gramineae Family	seeds	6		X	X	
1032N/936W XU5 F-88 SW Cell	8	Unidentified Gramineae Family	seeds	4		X	X	
1032N/936W XU5 F-88 SW Cell		Elymus sp.	seed	1	X		X	
1000N/1012W	8	Euphorbia sp.	seed	1	X			X
XU1 F-56 NW Cell		Panicum sp.	seed	1		X	X	
998N/1012W XU1 F-89 NW Cell	7	Unidentified Gramineae Family	seeds	2	X	X	x	
998N/1012W XU1 F-89 NW Ce11	9	<u>Stipa sp</u> .	seed	1		X	X	
988N/998W BHT 2	99.08M	Ambrosia sp.	seed	7	X		X	
Feature 100		Unidentified Gramineae Family	seeds	2		X	X	

No 24 /Ove d	Level	Tavas	Plant Part	Number Recovered	Whole	Fragment	Charred	Contaminant
Unit/Quad	<u>.</u>	Taxon	Part	₹ 8	₹	<u> </u>	- 5	
998N/1001.5 BHT 2 Feature 104	99.25M	Elymus sp.	seed	11		X	X	
986.5N/1006 BHT 2 Feature 106	99.4M	Stipa sp.	seed	1	X		X	
Bigon-Kubala	ı Site (<u>11wm258)</u>						
976N/956W	2	Unidentified						
370N/ 330N	-	Gramineae Family	seed	1		X	X	
976N/956W	5	Quercus sp.	acorn	2		X	X	
976N/956W	6	Quercus sp.	acorn	10		X	X	
976N/956W	8	Quercus sp.	acorn	1		X	X	
976N/956W	9	Sporobolus sp.	seeds	4	X		X	
976N/956W	10	Stipa sp.	seed	1	X		X	
976N/956W	11	Quercus sp.	acorn	2		X	X	
976N/956W	12	Quercus sp.	acorn	3		X	X	
		Undetermined Disseminule	seed	1	X		X	
976N/956W	14	Sporobolus sp.	seeds	2	X		X	
976N/973W	6	Carya sp.	nut- shell	1		X	X	
976N/973W	8	Unidentified Gramineae Family	seed	1	X		X	
976N/9 99W	12	Panicum sp.	seed	1	X		X	
975N/973W	4	Quercus sp.	acorn	2		X	X	

Unit/Quad	Level	Taxon	Plant Part	Number Recovered	Whole	Fragment	Charred	Contaminant
975N/973W	5	Carya sp.	nut- shell	3		Х	х	
		Quercus sp.	acorn	2		X	X	
		Helianthus sp. Unidentified	seeds	3	X		X	
		Gramineae Family	seed	1		X	X	
976N/1000W	7	Unidentified Gramineae Family	seeds	2		X	X	
975N/972W	5	Helianthus sp.	seeds	3		X	X	
<u>Cervenka Situ</u> 1000N/989W Feature 8	<u>(41W</u> 28	<u>Amaranthus sp</u> .	seed	1	X			X
1000N/990W Under metate in F-5	20	Cheno-am	seed	1	X		X	
1001N/989W NW%	7	Sporobolus sp.	seeds	2		X	X	
1001n/989w nw4	8	Amaranthus sp.	seed	1	X			X
1017N/985W NW¾	8	Unidentified Gramineae Family	seed	1		X	X	
1017N/986W	•	Dana 3	seed	1	Χ		Χ	
NW4	9	Paspalum sp.	3660	• .	•		,,	

Unit/Quad	Level	Taxon	Plant Part	Number Recovered	Whole	Fragment	Charred	Contaminant
1018N/986W NW%	10	Unidentified Gramineae Family	seed	1		X	X	
1018N/987W NW ¹ 4	22	<u>Ambrosia</u> <u>sp</u> .	seed	1	X			X
1058N/987.5 NW3	61/62	<u>Helianthus</u> sp.	seed	1		X	Χ	

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Appendix C: Vertebrate Fauna Data

The following appendix provides numerical data for osteological remains recovered from each excavation area of each investigated site. These bone counts served as the basis for enumerating the total amount of vertebrate faunal material from a given cultural component and were used to give an indication of (1) density of occupation (number of bone fragments per cubic meter), (2) intensity of occupation (amount of burned bone and total bone, (3) the relationship of preservation/fragmentation factors on the percentage of species identifiable bone.

The tables are designed to present maximum numerical information. For each level, the number of burned fragments, unburned fragments and fragments associated with feature material are combined to yield the total number of bone fragments recovered from that level. Then a component total is calculated by combining the level totals from levels designated as a contiguous cultural component. The data at the bottom left portion of the tables present the total bone recovered from the excavation area including the total feature bone and identified material. Data that exclusively concern the identified material are given on the right portion of the table as it has been summarized for each cultural component. The last column indicates the percentage identified of the component total and lastly, the percentage identified of the total bone recovered.

Legend

Lv. #B #UB T.B.R. arbitrary excavation level number of burned fragments number of unburned fragments total bone recovered indicates combined levels

SITE 41WH53 AREA . 41 MM53 AREA A SITE _ TOTAL BONE RECOVERED * (includes identified) IDENTIFIED BONE TOTAL BONE RECOVERED * (includes identified) IDENTIFIED BONE Componer Total Feature Bone Component Total Componer Total Total omponent LV #8 #UB omponent LV #B #UB Total TOTAL 18 1UB 210 A PUB X10 38 5 13 18 6 2 71 186 257 295 Austin/ Twin Sis 3 188 318 506 11 32 43 5 4 131 231 367 44 84 873 Austin 4 | 17 23 6 1.9 t Twin 5 29 225 33 194 256 Sisters AUSTIN/IN A 6 39 28 67 38 27 65 Sisters 7 25 23 48 0 1 7 26 28 54 119 12 21 392 13 13 29 Sisters 9 29 Sub-Tota 16 46 Sub-Total 154 155 m/o Fe Feature Total w/o Feat Feature 81 118 199 1 2 3 Total T.8.R.* 588 972 17 48 65 T.B.R. 224 233 SITE 41W656 SITE 41M53 AREA TOTAL SONE RECOVERED . (Includes identified) TOTAL BOME RECOVERED * (includes identified) IDENTIFIED BONE IDENTIFIED BONE Component Total Component Total Total Component Total LV #B #UB Total Bone #8 l øus 18 1UB Total #UB **E10 \$10** 18 Twin Sisters Unknown 1 2 1 3 25 4 13 17 2 1 1 30 58 88 8 19 4.4 Twin Sisters 3 | 10 18 28 175 360 575 4 ì 3 559 1 ı 63 241 304 1 23 24 35 147 182 . 6 4 10 42 211 253 10 4 1 5 8 31 61 92 73 . Sub-Tota Sub-10th Vo Feature Feature 25 506 1530 24 117 w/o Feature

SITE 41M66 AREA _C SITE TOTAL BONE RECOVERED . (includes identified) TOTAL BONE RECOVERED . (includes identified) INCUTIFIED BONE IDENTIFIED BONE Component Total Feature Bone Total Total Bone Total #8 #US Component LV 8 #UB component LY #8 #US Total #B #UB 1 158 164 63 98 2 95 230 1703 2783 1366 2379 3 131 449 818 1544 4 128 379 Rock Round Rock Clear Fork 5 80 217 621 1463 53 200 Clear Fork 6 5 54 397 1010 150 607 Clear Fork 755 1284 4 26 San Geronimo 11 103 SUB-TOLON 683 1937 40 271 w/o Feature

72740 3359

245 826 1071

Sub-Total

wo feature Feature Total

T.8.R.*

468 1832

5 79

473 1911

feature Iotal

T.B.R.

21 121 709 2058

43 294

Feature Bone Component Total eature Bone Total LV #8 +U8 Total #8 #48 Component Mixed 19 28 47 385 2 1113 272 12 84 96 10 500 3 151 349 932 San Marcos Round Rock 485 93 392 13 60 270 330 8 131 144 273 6 33 191 49 1088 Unknown 7 33 99 132 132 4 23 27 20 Clear 21 97 1 29 8 10 86 1 2 42 44 San Geronim 10 11 -12 515 1733 25 | 267 Wo Feature Feature Total T.G.R.° 8 42 523 1775 2298 25 272 297 13

SITE 41WM56

TOTAL BONE RECOVERED * (includes identified)

AREA _

<u>0</u> .. _ _

IDENTIFIED BONE

SITE 41MM56

TOTAL BONE RECOVERED * (includes identified)

IDENTIFIED BONE

Component	LV.	18	#UB	Feature Bone	Total	Component Total		#8	#UB	Feature Bone	Component Total	210
Mixed	ī	8	20	-	28		I	10	24	-	3'	8
	2	154	224		378	406	۱					
Round Rock	3	111	208	-	319	319	П	5	23	•	28	9
Clear Fork	4	106	222	-	328		1	T				
-	5	51	110	-	161			27	94	•	121	15
	6	55	237	•	292	781	D					
San Geronimo	7	.82	188	29	299		ħ)				T
	8	66	202	•	268		K	9	107	5	121	17
•	9	27	91	•	118		K					Τ
•	10	3	12	-	15	700	1					
Sub-Tota w/o featur		663	1514				T	51	248			
Feature Total		9	20	29				2	3	5		
T.B.R.*		672	1534		2206		T	53	251		304	14

			SITE	416	M56	_		REA	F (XU-	5)	
Twin Sisters	1	15	44	_	59		Th				\top
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•	3	64	124	61	249	446				-	1
Unknown	4	23	57	•	80		1) -	5		5	
•	5	2	33	-	35	115	17				14
San Marcos	6	11	39	•	50		17 -	1		1	
•	7	1 -	-	-	T - T	50	W				2
Sub-Total w/o featur		173	377				6	36			
Feature Total		12	49	61			3	4	,		
T.B.R.*		185	425		611		11 9	27		49	i.

SITE 41WHS7 SITE 41MS7 AREA ___C_ TOTAL SOME RECOVERED . (Includes identified) IDENTIFIED SONE TOTAL BONE RECOVERED * (includes identified) IDENTIFIED BONE #8 #UB Feature Feature Some Total Feature Bone Total Component Total Component Total Component Total Component LV #8 #UB mponent LV +8 +U8 #B #UB Plow Zone 1 6 Plow Zone 13 2 18 34 52 65 10 18 28 Round Rock San Marcos 3 24 76 100 3 4 135 163 26 109 Round Rock San Marcos 4 13 25 38 138 15 68 83 2 Unknown 5 4 8 8 11 36 47 Sub-Total w/o Feature Feature Total Sub-Total v/o featur Feature Total 65 146 3 7 17 62 231 5 • T.B.R.* 146 211 4 62 231 293 5 T.B.R.*

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Plow Zone	1	1	-	-	1		R.	ŀ			T
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Round Rock, San Parcos	3	24	34	•	58						\perp
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Unknown	6	•	•	-	-		Q -	-		-	T
	7	3	-		4	4					\perp
Sub-Totali Vo Feature		49	59				-	,			
feature Total		·	-	-				Ŀ	•		
T.B.R.*		49	59		108		-	7		7	
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		SITE	_	411467		ARE	۸ _			
Plow Zone	1	Ŀ		•	Ŀ	1 -			<u> </u>	
•	2		•	-		7		J		
Round Rock	3	14	63	-	77					
•	4	3	28	•	31	K -	15		15	
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ub-Total		21	97			•	15			
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T.8.R.*		21	97		118	•	15		15	13
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SITE 41WH57 SITE ____41M57 AREA ____ TOTAL BONE RECOVERED . (Includes identified) IDENTIFIED BONE TOTAL BONE RECOVERED * (includes identified) IDENTIFIED BONE | Bone | Total | Total Feature Bone Total #8 #UB Bone Component Total Feature | Component | Bone | Total Component Total Camponent LV 8 4U8 Component LV #8 #UB Z10 18 1U8 ¥10 2 2 2 1 13 14 | _ | 3.7 Zone Round 28 58 30 1 7 21 46 67 125 3 | 2 Clear 20 Fork. 35 123 w/o feature Feature Total 5 9 17 26 13 8 13 52 201 T.B.R.* Sub-Tota 93 168 w/o Feature Feature Total 22 29 * SITE ____41W67 AREA _ 122 206 26 SITE 41M57 . AREA _ F 1 No Identified Unknown 1 w/o Feature Feature Total 11 Round Rock San Marcos 3 15 14 1 4 18 25 19 26 67 Unknown Sub-Total 20 62 w/o feature Feature Intal T.B.R.* 50 82 62 2 2

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TOTAL SONE RECOVERED . (includes identified) IDENTIFIED SONE Component LY #8 #U8 | Feature | Total Component | Feature | Fotal | Feature | Bone Total **X10** 1 3 1 4 2 17 47 . 64 3 3 ī 4 13 4 23 5 28 5 47 54 101 201 Round Rock 6 42 31 73 7 15 21 4 40 2 8 11 29 40 157 Sub-Yotal (w/o feature) 161 193 Feature Total 2 2 7 10

AREA _A __

SITE 419873

SITE 41M173

TOTAL BONE RECOVERED .

IDENTIFIED BONE

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	14	27	80	171	278	2405	Į	_	L	_			
Mixed Zone	13	24	24		48		I	L	L	┙			L
	14	87	127		214		ı	51	Ľ	13	2	146	22
	15	118	274	16	408	670		<u> </u>	L	┙			<u> </u>
lound Rock/ lear Fork	13	72	115		187		I		L	1			L
	14	196	341		537		ľ	335	5	13		868	25
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	17	452	543		995	3488	Į	_	L	4			
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TOTAL BONE RECOVERED . (Includes identified) IDENTIFIED BONE component LY #B #UB Feature Total Total Component Total #B #UB KID Clear Fork 18 222 313 535 19 117 178 62 143 295 205 24 20 2 2 4 21 1 837 Sub-Total w/o feature) Feature Total 2933 4280 578 1033 106 81 15 23 187 38 3039 4361 593 1056 22 T.B.R.* 1649 7400

AREA B (Continued)

SITE ANNOTA

SITE	41IM73	AREA
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TOTAL BONE RECOVERED * (includes identified)

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Round Rock	1	2	-	Ŀ	2		I					
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	6	31	17	•	48		I	Γ				
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•	8	8	7	-	15		Ī	Γ		, ,		
•	9	27	102	-	129	332	ı					
Clear Fork	10	19	36		55		Ī					
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AREA

SETE 1.394328

SITE		41W4328
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TOTAL BOME RECOVERED . (Includes identified)

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Component	LV	18	#UB	Feature Bone	Total	Component Total		/8	#UB	Feature Bone	Component Total	E10
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Austin	8	2	3		5							
•	9	22	24	·	46		l	2	6		8	8
•	10	24	21	•	45	96						L
•	11		•	•	•		I					
•	12	•	•	•	-							
•	13	-	•	-	_ :		V					L
lwin Sisters	14	33	8	-	41		ľ	L.				
•	15	15	4	24	43		L	_				
•	16	28	3	- 1	31		l					
	"	66	نــا	22	88							
•	18	121	3		124		U	24	_'		28	1
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ub-Total V/O Featu	re l	370	74				L	26	8			
Feature Total	\sqcup	41		-46			L	2	1			
7.8.R.*	4	413	"		490		L	28	9		37	
	\sqcup		_					┙	_			$oxed{oxed}$
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SITE 416M404 SITE 41WM404 AREA TOTAL BONE RECOVERED . (includes identified) TOTAL BONE RECOVERED * (includes identified) IDENTIFIED BONE IDENTIFIED BONE Component Total eature Bone Component Total eature Bone Total omponent Total Inponent Total LV #B #UB Total ¥10 #B #UB Component LV #8 #UB #8 #UB • ī T . -ĩ -• Sub-total (w/o Feature) 57 209 Feature Total - -6 57 Sub-Total (w/o Feature) Feature Total 51 209 T.B.R. 44 49 SITE 411M404 AREA __ AREA. SITE 4199404 ग Z 4 140 5 14 Sub-total w/o Feature) 272 Feature Total -• T.B.R. 272 163 9 25 ī Sub-Total 76 77 Feature Total - -11 2 19 76 77

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SITE 41WAO4 SITE 41WH404 AREA ___E AREA TOTAL BONE RECOVERED * (includes identified) TOTAL BONE RECOVERED . (Includes identified) IDENTIFIED BONE IDENTIFIED BONE Bone Total feature Bone Feature Bone Total eature Bone Component Total Component Total Component Total Component Total amponent LV +B #UB #B | #UB LV 8 108 **%10** #B #UB **X**10 2 1 19 102 221 3 77 11 88 12 5 ī 1 1 2 20 10 6 3 7 Sub-total w/o feature) 128 117 Feature Total 14 ī -5 9 12 23 128 117 245 T.B.R.* 12 23 35 Sub-total w/o Feature) Feature Total T.B.R.* 113 35 SITE 41MM04 AREA 113 35 6 19 25 42 42 AREA _ F_ SITE 41WED4 3 80 12 92 17 13 30 4 95 34 129 Sub-total (w/oFeature) Feature Total 58 23 81 181 65 4 42 54 13 67 3 T.8.R.* 181 65 246 25 4 42 46 10 35 5 z 17 6 23 6 Sub-total (w/o Feature) 176 Feature Total -67 13 21 T.B.E. 176 67 243 1-1-

SITE 41WIMO4 1 411/1/1404 AREA _ SITE __ AREA TOTAL BONE RECOVERED * (includes identified) IDENTIFIED BONE TOTAL BONE RECOVERED * (includes identified) IDENTIFIED BONE Bone Total Feature Bone eature | Component Bone Total Total **210** Component Total #B #UB LV #B #UB X 10 Intal #B #UB omponent LV -8 #UB Bone 4 26 1 59 224 283 13 52 1 14 22 36 14 56 7 7 2 19 37 10 113 21 92 3 4 51 11 15 1 4 8 7 1 2 Sub-total (w/o featu Feature Total 31 1 21 92 Sub-total (w/o Feature) Feature Total 216 278 35 31 92 123 21 22 43 T.8.R.* SITE 41WM04 AREA __ 1 SITE ____41W404 14 2 12 3 2 91 103 194 6 18 24 1 17 141 27 158 26 2 10 121 12 62 59 51 103 154 15 4 26 25 51 85 153 12 3 63 Sub-total w/o Feature) 193 204 feature 4 | 11 20 1 9 35 5 3 3 Total T.B.R. Sub-total (w/o feature) 167 321 Feature Total - -193 204 397 9 35 44 49 488 57 T.8.R.* 167 321 8 49

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SITE 414M404 AREA SITE 41WH404 TOTAL BONE RECOVERED * (includes identified) IDENTIFIED BONE TOTAL BONE RECOVERED * (includes identified) IDENTIFIED BONE Bone Total eature Bone Total Total Componen Total **\$10** omponent LV #8 #U8 #B #UB Component LV #8 #UB Total 18 JUB ¥10 3 2 21 34 10 14 1 3 1 55 14 1 13 5 2 3 38 41 6 2 36 29 -65 ı 47 25 116 141 2 45 3 12 6 18 1 1 2 Sub-total (w/o Feature) 4 57 116 19 173 19 16 8 138 6 16 22 69 69 T.B.R. 3 79 SITE 41WM404 AREA _ 87 289 376 3 79 82 T.B.R.* 8 4 39 39 8 AREA _ 2 SITE 41181404 23 30 41 71 3 20 21 42 63 9 11 3 13 16 2 2 28 28 3 12 15 2 15 89 104 1 1 2 -144 6 19 25 3 37 107 7 7 55 143 7 26 Sub-teta 19 43 Feature Total Sub-total (w/o feature) 63 229 Feature Total 5 43 48 55 143 T.B.R. 198 63 69 292 T.B.R.*

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SITE 41W1133 SITE 414M404 AREA __ AREA XU-6 TOTAL BONE RECOVERED * (includes identified) TOTAL BONE RECOVERED * (includes identified) IDENTIFIED BONE IDENTIFIED BONE Feature Bone Total Component Total Component Total Bone Total Component Total omponent LV #8 #UB X 10 #B #U8 LV FB FUB /B | /UB KID 1 3 2 4 2 Sub-total (w/o Feature Feature Total 2 -. --T.B.R. 5 2 -3 -14 11 2 27 2 4 2 2 1 ı Sub-total (w/o Feature) SITE 41MM404 AREA _ Feature Total 3 4 T.B.R.* 22 14 36 2 2 Sub-total (w/o feature) feature Total 12 9 32 41 17 17

<u>___</u>

SITE 41MM124 41WH124 SITE TOTAL BONE RECOVERED * (includes identified) TOTAL BONE RECOVERED . (Includes Identified) IDENTIFIED BONE Component Total eature Bone Total omponent Total LY 18 108 : v | #8 ķID #UB #8 #108 Total Austin. Toyah San Marcos (Cont.) 6 93 30 16 39 11 22 Sister

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AREA

SITE 41WH124

SITE 41WHI24

TOTAL BONE RECOVERED . (Includes identified)

IDENTIFIED BONE

TOTAL BONE RECOVERED * (Includes identified)

IDENTIFIED BONE

Component	LV	11.0	#U8	Feature Bone	Total	Component Total	,,	#UB	Feature Bone	Component Total	X 10
Austin/	╄	#	+-	+	 	local -	·**	100	Bone	IOTAL	F10
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	2	Ŀ	<u> </u>	<u> </u>	<u> </u>	11					1
-	3] 3	6	· _	9		·	12		12	10
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	5	3	111	-	14			T			1
•	6	22	23	-	45						1
	7	12	22	·	34	115					1
Twin Sisters	8	8	9		17						Γ
•	9	6	12		18						Γ
•	10	8	28	-	35)	-	7	•	7	5
	11	11	20	•	31						Г
•	12	7	27	-	34	136	Γ	П			
San Marcos	13	30	68		98			П			1
	14	5	22		27			П			1
- 1	15	5	15		20		Ι-	П			
•	16	2	6	•	8			П			1
•	17	4	3		7	7	1	14		15	7.7
•	18	3	6	-	9	1				·	\vdash
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•	20	1	11	•	12						
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b-lotal	rej	134	310				-	33			
tature Total	1	-	-	. 1			•	- 1	•		
T.B.R.	7	134	310		441		1	33		34	7.6
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Component	LV	18	#U8	Feature		Component Total			Feature	Component	L
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•	2	3	27	•	30		-	3	-	3	Τ
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•	4	14	122		136		-	21	٠	21	Γ
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Sub-tota w/o Featu	re)	27	282				•	64			Ī
feature Total	\cdot	-	•				-	-			T
T.B.R.*		27	282		309		•	64		64	21
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SITE 41uml63 IDENTIFIED BOME TOTAL BONE RECOVERED * (Includes identified) Total Total #B #UB KID LV #8 +U8 Total 9 30 39 3 9 47 56 0 5 5 5 • 0 1 1 -7 8 9 --10 --11 12 2 3 1 13 -14 -• 104 Total 19 85

TOTAL BOME RECOVERED * (includes identified)

IDENTIFIED BONE

Componen t	LV	/8	rus	Feature Sone	Total	Component Total		#	/UB	Feeture Bone	Component Total	x10
Toyah	1	1	6		-		I					Т
•	2	-	T -		-	7	I	Jī	1		2	29
Twin Sisters	3	15	47		62		l	1				
•	4	3	10		13		I					
•	5	2	,		11		I		Γ			
•	6	2	ī		3		I	0	4		4	3
•	7	0	10		10		I		Γ			L
•	•	11	33		44	143	I	Γ				Π
San Marcos	9	7	26		33		I					Ι
•	10	10	16		26	59	ı	1	6		7	12
Rock	11	ī	2		3		1					
•	12	2	19		21			2	16		18	31
•	13	11	20		31							
•	14	•	3		3	58						
otal	\dashv	65	202		267		I	4	27		31	122

"ETE 41M0163

AREA Backhoe Trenches

TOTAL JONE RECOVERED * (includes identified)

Camponent	FA.	#	FUE	Feature Some	Total	Component Total	n	AUB.	Feeture Bone	Component Total	¥10
ø1		0	5		5		•	_		<u> </u>	
62		2	25		27		0	3		3	11
13		2	14		16		1	7		8	50
69		0	42		42		-	1		1	2
<i>6</i> 10		0	16		16		0	3		3	19
#11		•	2		Z		ŀ	-			ŀ
Total	\neg	4	104		108		ī	14		15	15

SITE 41WH230

AREA XU-1

SITE 41WH230

AREA XU-2

TOTAL BONE RECOVERED * (includes identified)

IDENTIFIED BONE

TOTAL BONE RECOVERED * (includes identified)

IDENTIFIED BONE

Camponen	,	v.	#8	4U8	Feature Bone	Total	Component Total		18	øUB	Feature Bone	Component Total	×10
Austin/ Toyah	1	1		-	1	-		ľ	Γ			 	1
•	2		44	65	89	198		Ħ	1-				1
*] 3		168	74	-	242		Ħ	12	53	4	59	2.
•	4	1	560	179	36	775		Ħ	Γ				T
•	5		854	206	•	1060	2278	ı	_				T
Austin	6	1	1239	234	2101	3624	3624	İ	4	22	64	90	2.
Twin Sisters	7	1	766	182	682	1630		h	Г				1
•	8	1	344	54	209	607		ľ	10	92	7	109	3.9
•	9	I	206	57	•	263		Ï	_				1
•	10	1	152	107	8	267	2767	t	-				1
Round Rock	11	I	130	161	-	291		ħ					┌┈
*	12	I	62	115	-	177		۱					-
	13	I	33	43	-	76		1	ε	102	-	108	14
•	14	$\ $	17	83	-	100		1					
•	15	$ lap{I}$	14	123	-	137	778	V	_				<u> </u>
	F111		86	30		116	116	Γ					
	?		16	23	·	39	39	L	=	13	·	13	
ub-total W/O Featu	re)	E	91	1736		\neg		Ī	22	282			
Feature Intal		þ,	550	475	3125			ľ	,	68	75		
T.B.R.*		7	141	_		602		1		350		379	3.9
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Component	LV.	#8	#UB	Feature Bone	Total	Component Total	#8	₽UB	Feature Bone	Component Total	x10
	1	-	5	·	5		-	-		-	Τ
	2	<u> </u>	168	-	168		1	62		63	
Sub-totaî (w/oFeatu		F	Г					62			T
Feature Total		t.						-			
T.B.R.*		-	173		173		1	62		63	36
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SITE 41MR230 AREA KILES

SITE 41161230

XU-3 (Continued)

TOTAL BONE RECOVERED * (includes identified)

IDENTIFIED BONE

TOTAL BONE RECOVERED * (includes identified)

	amponen t	LV.	18	eus.	Feature Bone	Total	Component Total	I	18	#UB	Feature Bone	Component Total	E10
t		7	-	53	-	53		H		1	ļ — —	l	
þ	ustin/ Toyah	2	65	1059	124	1248		I	7				
		3	85	602	-	687		I	71	609	42	665	26
Т	•	4	81	407	113	501	2536		厂				
١,	Twin isters	5	105	940	227	1272		1	1				
	•	6	158	958	94	1210			Γ				
ſ	•	7	173	862	35	1070			L	L	,		L
Į	•	8	164	791	78	1033			\prod	L			
	•	9	196	348	120	1166			L				
I	•	10	203	724	169	1096							
Ι	•	ΙĪ	150	176	55	381			U				
		12	142	419	1	562			82	1319	234	1635	79.5
L	•	13	31	70	23	124			L				
	•	14	17	76	•	93		l	L				
L	•	15	19	25	•	44		l	L		·		
L		16	16	16	•	32		I	L			L	
L	•	17	3	41	206	250		I	L				
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	San Jarcos	21	8	38	•	46			•	_			
L		22	_3	29	<u>.</u>	32		l	1_	L.			
L		23	_5	32		37		l	L				
L		24	17	46	-	63		Į,	L	Щ		L	
L		25	18	66	57	141			L		<u> </u>		
L		Zố!	45	116		162	l	J		<u>. </u>			

Component	LV.	18	#UB	Feature Bone	Total	Component Total		#B	#UB	Feature Bone	Component Total	210
Cont.	27	152	220	6	378			_				
•	28	181	170	8	359		ľ				<u> </u>	L
•	29	35	58		93			10	62	2	74	5
•	30	9	58	•	67							L
	31	3	10		13		\prod	L			<u> </u>	L
•	32	4	5	•	9			L				L
	33	-	33	-	33	1433	W		L			
Round Rock	34	3	. 3	•	18							L
	35	7	63	•	75		W					
	36	8	47		55		N	, 7	3	6	16	4
	37	13	38	•	51		П					L
•	33	29	88	16	133		7					L
	39	2	10	14	26	358						
	7	10	171	21	202		1					
wo featu	•1	2181	9433				T	113	1993			L
resture Total		212	1169	1381			T	3	281	284		L
T.B.R.*			10602		12,995		T	116	2274		2390	18.
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SITE 41HH230

AREA XU-5

SITE 41WH230

AREA __XU-7

TOTAL BONE RECOVERED * (includes identified)

IDENTIFIED BONE

TOTAL BONE RECOVERED * (includes identified)

Component	LV.	18	FUB	Feature Bone	Total	Component Total		18	#U8	Feature Bone	Component Total	×10
Toyah	1	-	8	-	8		II					T
*	2	4	46	-	50		ll	(7	58		59	29
•	3	2	37	•	39		I	T				1
-	4	15	89	-	104	201	l	<i>T</i>				\top
Austin	5	8	79	8	95		ľ	Ī				1
-	6	15	59	156	230		۱	T				Τ
	7	20	46	-	66		I	1				
	8	9	132	-	141		I		П	-		Τ
•	9	10	24	44	78				П			
•	10	5	10	-	15		Ť	abla	П			Т
•	11	4	16	-	20		ı	7	57	16	74	10
-	12	1	40	•	41		Ì					1
•	13	6	21	-	27		t	П				
•	14	3	4	-	7		T					Г
-	15	3	21	-	24		Ť					Γ
•	16	-	-	-	-		1					
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Sub-total w/o Featy	re)	105	632				Ť	2	115			
Feature Total		57	151	206			Ī	1	15	16		Ī
T.B.R.*	7	162	783		945		ľ	-	131		133	14
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SITE 416M230

XU-9

TOTAL BONE RECOVERED * (Includes identified)

SITE 41M230

IDENTIFIED BONE

TOTAL BONE RECOVERED . (includes identified)

1 2	/B	#U8	Bone						Feature	Component	
1 1	-	1		Total	Component Total	4	#8	#UB	Bone	Total	210
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	-	-	68	68		I	1-	1	7	8	
5	-	3		3		I	7-	-	•	-	Г
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Component	LV.	18	708	Feature Bone	Total	Component Total	I	18	#U8	Feature Bone	Component Total	210
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Round Rock	6	4	14	•	18		\mathbb{I}					
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	8	10	55	•	65		ľ					L
	9	13	51	25	89		l	Ŀ	17	3	20	
•	10	2	30	-	32							
•	11	5	3	3	11		I					L
•	12					243	J					
SUB-total #/o featu	re)	36	210					-	19			
eature Total		8	23	31					,	1		L
T.8.R.*		44	233		277				22		22	8
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SITE 41WH258 AREA A \$17E 41MM258 AREA B TOTAL BOME RECOVERED * (Includes identified) IDENTIFIED BONE TOTAL BONE RECOVERED * (includes identified) L'ENTIFIED BONE Component LY 58 5UB Feature Total Component Total Total Total Toyah 2 - 73 - 73 #8 #UB Bone Total KID #8 #UB Bone Total BID 3 36 64 100 83 4 88 231 319 4 52 28 5 62 181 210 -243 5 28 182 735 __ 6 8 70 -78 1798 6 16 95 38 13 Austin 111 - 38 7 3 39 42 7 14 157 171 282 8 14 93 9 - 19 107 8 1 18 19 15 19 18 22 129 10 3 3 14 127 Twin Sisters 1 12 -1146 141 230 916 14 127 12 7.B.R.* 13 2 -33 2 14 (w/o Feature) 188 1519 216 216 Total 188 1735 T.B.R. 5 94 1923

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2-2

AREA __C_

SITE 41M4258

SITE	41MH267
TOTAL BONE RE	COVERED *

IDENTIFIED BONE

1 of 2

IDENTIFIED BONE IDENTIFIED BONE

omponent	LV	18	#UB	Feature Bone	Total	Total	18	#UB	Feature Bone	Component	210	Component	LV	1B	#UB	Feature Bone	
San Geronimo	25	4	85	-	89						\Box	Over- burden	1	Ŀ	-	·	I
	26	1	39		39			_				Twin Sisters	2	6	48		l
	27	-	19		19	891			,			•	3	_1_	122	<u>.</u>	ĺ
Zub-10141	-	620	4029				68	899				•	4	1	130		l
w/o Featur			-		 	t	-	-		 	f	-	5	13			Į
Total		12	_	32		 	2	5	-8	 	1	-	1	1	201		t
T.B.R.*	-	691	4049		4740		70	905	ļ 	975	20.4	San	5	46	,	 	İ
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199 28
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1290 3

SITE 41W4267 AREA entire (both seasons) SITE 41WH267 2 of 2 AREA B IDENTIFIED SONE TOTAL BONE RECOVERED * (Includes identified) TOTAL BONE RECOVERED * (Includes identified) IDENTIFIED BONE Component Total Feature Bone Total Component Total Component Total **×10** LV #8 #UB #8 #U8 component LV /8 /UB #B #UB Total **E10** Twin Sisters 2 Geronimo 26 0 3 27 49 50 2 3 0 2 3 46 25 28 27 28 49 2 29 2 3 5 30 29 29 3 4 7 24 194 . 0 1 105 2356 1265 8075 w/o Feature Feature . 9 10 11 . . 13 AREA __C(XU-3) SITE 41WH267 • 24 1 15 1 0 • • 17 18 1 4 19 0 4 . 3 235 24 56 1 12 21 6 18 San 40 Marcos Sub-Total w/o feature Feature Total 4 2 4 2 6

C-2

SITE 41W1267

REA D (continued)

SITE 41MM267

REA D (continued)

TOTAL BONE RECOVERED * (Includes identified)

IDENTIFIED BONE

TOTAL BONE RECOVERED * (includes identified)

IDENTIFIED BONE

Component		/B	/UB	Feature Bone	Total	Component Total	/B	#U8	Feature Bone	Component Total	X10
San Marcos (cont'd.)	27	3	17		20						
	28	10	21		31						<u> </u>
•	29	15	21		36			L		<u> </u>	↓_
•	30	6	13		19			L			_
•	31	5	17		22		_	<u></u>			↓_
	32	1	12		19			<u>_</u>			1_
•	33	2	9		11						_
•	34	0	6		6		_	_			↓_
	35	1	10		11		_				L
	36	1	6		7	297	16	43		63	219
Unknown	37	1	5		6		L			<u> </u>	L
	38	٥	٩		•		L	Ш			L
	الود	٥	2		2		L				L
	40	1	1		2		_				<u> </u>
	41	0	3		_3		L_				L
	42	٥	6		6		<u> </u>				L
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	44	0	1		1		L_				L
	45	:					_				_
•	46	_0	긔			26	1	5		6	23.
Clear Fork	47	اه	1								L
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<u>· </u>	51	0	1		1]]		
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Component	LV.	#B	#UB	Feature Bone	Total	Component Total	/B	FUB	Feature Bone	Component Total	210
ድցነክ 1978 51 - 52	52	2	1		3			1			1
1979 Upper	53	1	2		3						
53 - 54	54	17	69		86						L
	55	2	4		6		<u> </u>	1_			L
55 - 56	56	37	292		329		L	_		 	1
	57	2	1		9		1_	-			1
57 - 58	58	41	345		386		<u> </u>		<u>. </u>		_
	59	15	32		47		<u> </u>	ļ		<u> </u>	1
59 - 60	60	79	521		600		<u> </u>				L
	61	11	49		60		_	_			<u> </u>
61 - 62	62	141	1138		1279		L	1			L
	63	52	300		352					 	1_
63 - 64	64	_	364	5372	5772		ļ	\sqcup		ļ	!
	65	_	285		305		!				ļ
65 - 66 San	66	69	850		919	10164	58	873	692	1623	16
Geronimo	67	_14	51		65		ļ	$\vdash \vdash$			ļ
	68	32	421		453		_	\vdash			_
	69	21	78		99			-			
59 - 70	70	47			552		_				
	711	_4	22		26						
	72	49		-+	411						-
	계	-3	23		26			\dashv			├
	씱	_	123		131			-			
gin 1979	75	14	20		25			\dashv			
Lower 75-	/ 0 	-19	1170		120	——— <u>!</u> }					<u> </u>

C-2

TOTAL BONE RECOVERED * (Includes identified) IDENTIFIED BONE Component Total XID Feature Bone Total Component Total Component LV #8 #UB #B #UB ## 777 | 14 | 136 | 779 | 13 | 40 | 82 | 22 | 42 | 83 | 84 | 6 | 61 | 85 | 13 | 40 | 87 | 80 | 13 | 40 | 87 | 80 | 13 | 40 | 87 | 80 | 4 | 61 | 89 | 90 | - 13 | 92 | 2 | 17 | 94 | 5 | 7 | 95 | 7 | 19 | 97 | 100 | 2 | 100 | 2 | 100 | 2 | 100 | 9 | 100 | 100 | 8 | 100 | 2 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100

AREA D (continued)

SITE 41WH267

SITE	41WM267	AREA	D (continued)
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			ECOVER ent1f1					٠	DENTIFLE	U BUNE	
Component	LV.	#8	#UB	Feature Bone	Total	Component Total	/B	#UB	feature Bone	Component Total	\$10
	127- 128	3	6	_	8						
	129- 130	2	24		26						
	131- 132	2	20		22						Π
	133- 134	1	7		8	3240	57	643	24	720	22*
Sub-Total w/o Featu	res		7291		8278		133	1575			\prod
Total Fea Bone			5248	5505			10	706	716		
T.B.R.*		244	12539		13783		143	2282		2425	17.6

	UnID	4.10)			AREA_	ana çı	enera	
	1978	2	484	486	0	89		89	
	1979	8	416	424	 2	96		98_	
Totals		10	900	910	2	185		187	212
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APPENDIX D:

MOLLUSCAN FAUNA TABLES

SITE 41WM53

Molluscan Fauna

Gastropoda (766)	Specimen Numbers
Helicina orbiculata tropica Rabdotus dealbatus dealbatus Praticolella berlanderiana Anguispira strongylodes Mesomphix friabilis Pupoides albilabris Mesodon roemeri Polygyra texasiana texasiana Rumina decollata	259 427 46 2 19 2 7
Bivalvia (10)	·
Amblema plicata Lampsilis radiata siliquoidea Lampsilis teres Unidentifiable unionid fragments	1 8 1 <u>5</u>
Total number of specimens recovered	(781)
Test Areas	
Area A [98N/130W, 99N/130W, 96N/129W]	
1. <u>Unit 96N/129W</u>	
R. d. dealbatus L. r. siliquoidea L. teres	4 1 (9)
2. <u>Unit 98N/130W</u>	
H. o. tropica R. d. dealbatus P. berlanderiana M. friabilis P. albilabris M. roemeri P. t. texasiana R. decollata A. plicata L. r. siliquoidea Unidentifiable unionid fragments	153 226 23 12 2 7 1 3 1 1 3 (431)

1

(1)

Site 41WM53 (continued) Page 2 Area A		D-
H. o. tropica R. d. dealbatus P. berlanderiana A. strongylodes M. friabilis L. r. siliquoidea Unidentifiable unionid fragments	106 197 23 2 7 1 	
Area B [101N/128W]		
1. Unit 101N/128W		
L. r. siliquoidea	1	
	(1)	
<u>Area C</u> [101N/117]		
1. <u>Unit 101N/117W</u>		3

L. r. siliquoidea

SITE 41WM56

Molluscan Fauna

Gastropoda (4,610)	Specimen Numbers
Helicina orbiculata tropica Rabdotus dealbatus dealbatus Polygyra mooreana Praticolella berlanderiana Anguispira strongylodes Pupoides albilabris Mesodon roemeri Zonitoides arboreus Physa virgata Helisoma trivolvis lenta Gyraulus parvus Biomphalaria obstructa Succinea sp. Euglandina singleyana Mesodon thyroides Polygyra texasiana texasiana Rumina decollata	1,935 1,675 767 90 93 7 2 1 1 19 3 1 10 3 1
Bivalvia (1,780)	
Amblema plicata Lampsilis radiata siliquoidea Lampsilis teres Uniomerus tetralasmus Carunculina parva Tritogonia verrucosa Cyrtonaias tampicoemsis Cretaceous oyster Megalonaias gigantea	1,160 304 300 1 5 6 24 2
Total number of specimens recovered	(6,390)

Test Areas

 $\frac{\text{Area}}{1025\text{N}/1093\text{W}}, \ 1025\text{N}/1094\text{W}, \ 1026\text{N}/1093\text{W}, \ 1026\text{N}/1094\text{W}, \ 1027\text{N}/1093\text{W}, \ 1027\text{N}/1094\text{W}$

1. Unit 1025N/1093W

A.	plicata	3
L.	teres	1
		(4)

	Site 4	41WM56 (continued)		1
L	Page 2 Area /	2		
I	2.	Unit 1025N/1094W		
I		A. plicata L. teres	3 1	
r			(4)	
1.	3.	Unit 1026N/1093W		
I		H. o. tropica R. d. dealbatus P. mooreana A. plicata	22 20 12	
I		A. <u>plicata</u> L. <u>r. siliquoidea</u> L. <u>teres</u>	12 3 <u>4</u>	
I			(73)	
i	4.	Unit 1026N/1094W		
T.		A. plicata E. singleyana	8 <u>1</u>	
}			(9)	
	5.	Unit 1027N/1093W		
		R. d. <u>dealbatus</u> P. <u>mooreana</u>	2	
		A. <u>plicata</u> L. r. siliquoidea	11 4 3 1	
ı		L. <u>teres</u> U. <u>tetralasmus</u>	3 _1	
			(22)	
	6.	Unit 1027N/1094W		
		R. d. dealbatus P. mooreana A. plicata L. r. siliquoidea L. teres	2 1	
		A. <u>plicata</u> L. r. siliquoidea	11 4 <u>3</u>	
Li		L. teres	_3	
			(21)	

<u>Area B [1041N/1101W, 1041N/1105W, 1041N/1106W, 1042N/1105W, 1042N/1106W]</u>

1. Unit 1041N/1101W

<u>L</u> . <u>1</u>	teres	<u>1</u>
		(1)

2. Unit 1041N/1105W

H. o. tropica	2
R. d. dealbatus	4
A. plicata	35
L. r. siliquoidea	16
L. teres	_4
	(61)

3. Unit 1041N/1106W

H. o. tropica R. d. dealbatus	1
P. mooreana	ĭ
A. plicata	41
A. plicata L. r. siliquoidea	9
L. teres	8
E. singleyana	1
E. singleyana C. parva	_1
	(76)

4. Unit 1042N/1105W

H. o. tropica	2
R. d. dealbatus	4
A. plicata	90
L. r. siliquoidea	12
L. teres	_4
	(112)

5. Unit 1042N/1106W

R. d. dealbatus	2
R. d. dealbatus A. plicata	49
L. r. siliquoidea	20
L. teres	14
C. parva	1
	(86)

14

15 1

(63)

R. d. dealbatus
A. plicata
L. r. siliquoidea

L. teres

T. verrucosa

Site 41WM56 (continued) Page 5 Area C

ge 5 ea C	
R. d. dealbatus P. t. texasiana A. plicata L. r. siliquoidea L. teres C. tampicoensis	8 1 40 14 10 2 (75)
A. plicata L. r. siliquoidea L. teres	24 4 <u>4</u> (32)
H. o. tropica R. d. dealbatus P. mooreana P. albilabris E. singleyana A. plicata L. r. siliquoidea L. teres	1 5 1 1 21 8 5 (43)
H. o. tropica R. d. dealbatus P. mooreana A. plicata L. r. siliquoidea L. teres C. tampicoensis	1 5 1 42 8 11 <u>4</u> (72)
R. d. dealbatus	49 23

£ 10011/ 1030.	40
R. d. dealbatus	49 23
R. d. dealbatus A. plicata	9
1. r. siliquoidea	_1
L. teres	(82)

Site 41WM56 (continued) Page 6 Area C	
11. Unit 1062N/1099W	
H. o. tropica R. d. dealbatus P. mooreana A. plicata L. r. siliquoidea L. teres	3 2 2 30 5 <u>15</u> (57)
12. Unit 1062N/1100W	
R. d. dealbatus A. plicata L. r. siliquoidea L. teres C. tampicoensis T. verrucosa C. oyster	2 31 10 14 3 1 <u>1</u> (62)
13. Unit 1063N/1097W	
H. o. tropica R. d. dealbatus A. plicata L. r. siliquoidea L. teres C. tampicoensis	1 2 29 9 9
	(53)
H. o. tropica R. d. dealbatus P. mooreana P. berlanderiana A. strongylodes P. albilabris M. roemeri Z. arboreus P. virgata H. t. lenta G. parvus B. obstructa Succinea sp.	1,897 1,510 741 90 93 6 2 1 1 19 3 1

Site 41WM56 (continued) Page 7 Area C	
A. plicata L. r. siliquoidea L. teres T. verrucosa M. gigantea	44 41 4 1 3 (4,557)
A. plicata L. r. siliquoidea L. teres C. tampicoensis	22 12 12 <u>1</u> (47)
R. d. dealbatus A. plicata L. r. siliquoidea L. teres T. verrucosa	2 23 10 7 <u>1</u> (43)
R. d. dealbatus P. mooreana A. plicata L. r. siliquoidea L. teres M. thyroides	1 2 30 9 11 1 (54)
H. o. tropica R. d. dealbatus A. plicata C. r. siliquoidea C. teres C. tampicoensis T. verrucosa	1 2 27 6 11 2 1 (50)

Site 41WM56 (continued) Page 9 Area D	D-12
4. Unit 1050N/1111.5-1110.5W	
A. plicata 1	
(1)	
5. <u>Unit 1050N/1112W</u>	
R. d. dealbatus 2 L. r. siliquoidea 1 L. teres 3	
(6)	
<u>Area E [1044N/1092-1093W, 1045N/1092-1093W]</u>	
1. <u>Unit 1044N/1092W</u>	
L. teres 2	
(2)	
2. <u>Unit 1044N/1093W</u>	
R. <u>d. dealbatus</u> 2 A. <u>plicata</u> 12	
L. r. siliquoidea 1 L. teres 2	
(17)	
3. <u>Unit 1044N/1097W</u>	
A. plicata 1	
(1)	
4. Unit 1045N/1092W	
R. d. dealbatus A. plicata C. r. siliquoidea C. tampicoensis C. parva (47)	
(4/)	

L. teres

D-13

(4)

Site 41 Page 11 Area F	WM 56	(continued)
2.	Unit	1047N/971W
_	11-4	1048N/969W

3.	Unit 1048N/969W	2
	A. plicata N. siliquoidea	<u>1</u>

(all bone)

E. singleyana (4)

4. <u>Unit 1048N/970W</u>

A plicata

2

 $\begin{array}{c} A. \ \ \underline{plicata} \\ \underline{L}. \ \ \underline{teres} \end{array} \tag{3}$

5. <u>Unit 1048N/971W</u> 1

 P. mooreana
 1

 A. plicata
 4

 L. r. siliquoidea
 1

 L. teres
 (7)

Gastropoda (2,066)	Specimen Numbers
Helicina orbiculata tropica Rabdotus dealbatus dealbatus Polygyra mooreana Praticolella berlanderiana Polygyra texasiana texasiana Succinea sp. Mesodon roemeri	731 1.066 244 17 5 2
Bivalvia (546) Uniomerus tetralasmas Amblema plicata Lampsilis radiata siliquoidea Lampsilis teres Cyrtonaias tampicoensis Tritogonia verrucosa Megalonaias gigantea Unidentifiable unionid fragments	1 404 87 29 1 1 1 24
Total number of specimens recovered	(2,612)
Test Areas	
<u>Area A</u> [1027N/1004W, 1005W, 1006W, 1007W;	1028N/1004W-1007W; 1029N/1004W-1005W]
1. <u>Unit 1027N/1004W</u>	
A. plicata	<u>4</u>
	(4)
2. <u>Unit 1027N/1005W</u>	
A. plicata C. teres	3 1
L. Leres	-
	(4)
3. <u>Unit 1027N/1006W</u> R. d. dealbatus	1
A. plicata	<u>3</u>
	(4)
- Unit 1027N/1007W	
A plicata Verrucosa	14
tetralsmus	1
	(16)

(10)

Site 41WM57 (continued) Page 3 Area A	C
12. Unit 1029N/1006W	
L. r. siliquoidea	<u>9</u>
— — — — — — — — — — — — — — — — — — —	(9)
13. Unit 1030N/1004W	
A. plicata	1
	(1)
14. Unit 1030N/1005W	
H. o. tropica	1
H. o. tropica R. d. dealbatus A. plicata]] <u>2</u>
L. r. siliquoidea	(5)
	(0)
Area B [1036N/1010W, 1036N/1011W, 1037N/1010W, 103	37N/1011W]
1. Unit 1036N/1010W	
A. plicata	11 1
L. r. Siliquoidea	(12)
2. Unit 1036N/1011W	
Unidentifiable unionid fragments	1
	(1)
3. Unit 1037N/1010W	
	2 <u>12</u>
R. d. <u>dealbatus</u> A. <u>plicata</u>	
·	(14)
4. Unit 1037N/1011W	~
A. plicata L. r. siliquoidea L. teres	, 7
L. teres	. 1
	(15)

Area C [1026N/1018W, 1026N/1019W, 1027N/1018W, 1027N/1019W]

1. Unit 1026N/1018W

A. plicata L. r. siliquoidea L. teres	4 6 <u>4</u>
	(14)

2. Unit 1026N/1019W

A. plicata L. r. siliquoidea L. teres	5 1 <u>1</u>
	(7)

3. Unit 1027N/1018W

A. plicata L. r. siliquoidea	2 1
	(3)

4. Unit 1027N/1019W

	701
H. o. tropica	701
R. d. dealbatus	994
P. mooreana	242
P. berlanderiana	16
P. t. texasiana	5
L. r. siliquoidea	2
S. sp.	2
S. sp. C. oyster	1
	(1,963)

 $\frac{\text{Area}}{1015\text{N}/1063\text{W}-1063\text{W}}, \ 1013\text{N}/1062\text{W}-1063\text{W}, \ 1014\text{N}/1063\text{W}-1064\text{W}, \ 1015\text{N}/1063\text{W}-1064\text{W}]$

Site 41WM57 (continued) Page 5 Area D	
1. Unit 1012N/1062W	
A. plicata	<u>4</u>
	(4)
2. Unit 1012N/1063W	_
A. plicata L. r. siliquoidea L. teres	1 4 <u>7</u>
L. teres	
	(12)
3. <u>Unit 1013N/1062W</u>	
A. plicata C. r. siliquoidea	$\frac{2}{1}$
L. I. allingarians	(3)
4. Unit 1013N/1063W	1
Unidentifiable unionid fragments A. <u>plicata</u>	1 .
A. P118888	(2)
5. <u>Unit 1013N/1064W</u>	•
A. plicata	3
	(3)
6. <u>Unit 1014N/1063W</u>	2
L. r. siliquoidea	<u>2</u>
	(2)
7. Unit 1014N/1064W	2
A. plicata	<u>.3</u> (3)
	(2)
8. <u>Unit 1015N/1063W</u>	'o
A. <u>plicata</u> L. <u>teres</u>	8 3 4
L. r. siliquoidea	 (15)
	(40)

Page 6 Area D	•	
9.	Unit 1015N/1064W	
	A. plicata L. r. siliquoidea	2 <u>2</u>
		(4)
<u>Area</u> E	[1017N/1021, 1022, 1023, 1024W; 1019N/1021, 1022, 1023, 1024W;	; 1018N/1021, 1022, 1023, 1024W; ; 1020N/1021W]
1.	Unit 1017N/1021W	
	A. plicata L. teres	3 <u>1</u>
		(4)
2.	Unit 1017N/1022W	
	A. <u>plicata</u> M. <u>gigantea</u>	4 <u>1</u>
		(5)
3.	Unit 1017N/1023W	
	A. plicata L. r. siliquoidea L. teres C. tampicoensis	22 2 2 <u>1</u>
		(27)
4.	Unit 1017N/1024W	
	A. plicata L. r. siliquoidea L. Teres	7 2 <u>1</u>
5.	Unit 1018N/1021W	(10)
	A. plicata L. r. siliquoidea	7 <u>1</u>
		(8)

Site 41WM57 (continued)

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L	Site 41WM57 (continued) Page 7 Area E	D-	21
1	6. <u>Unit 1018N/1022W</u>		
I	A. <u>plicata</u> L. <u>r. siliquoidea</u> L. <u>teres</u>	8 4 <u>1</u>	
		(13)	
	7. <u>Unit 1018N/1028W</u>		
	A. plicata	<u>8</u>	
ī		(8)	
I	8. <u>Unit 1018N/1024W</u>		
I	A. plicata	<u>7</u>	
		(7)	
	9. <u>Unit 1019N/1021W</u>		
	H. o. tropica R. d. dealbatus P. mooreana	6 5 <u>1</u>	
		(12)	
i	10. <u>Unit 1019N/1022W</u>		
	A. plicata L. r. siliquoidea	4 <u>1</u>	
:		(5)	
	11. <u>Unit 1019N/1023W</u>		
	L. teres	<u>1</u>	
		(1)	
	12. <u>Unit 1019N/1024W</u>		
	<u>L. r. siliquoidea</u>	<u>1</u>	
		(1)	
	13. <u>Unit 1020N/1021W</u>	_	
	L. r. siliquoidea	<u>3</u>	
[]		(3)	

<u>Area F [1022N/999, 1000W; 1023N/999, 1000W]</u>

1. <u>Unit 1022N/999W</u>

A. plicata L. r. siliquoidea	29 _2
	(31)

2. Unit 1022N/1000W

A. plicata			<u>10</u>
		-	(10)

3. Unit_1023N/999W

A. plicata	<u>1</u>
	(1)

4. Unit 1023N/1000W

<u>A</u> .	<u>pl</u>	<u>icata</u>	20
	<u>r</u> .	<u>siliquoidea</u>	_4
			(24

Area G [1047N/1035, 1036W; 1048N/1035, 1036W; 1049N/1035, 1036W; 1050N/1035, 1036W]

1. <u>Unit 1047N/1035W</u>

A. plicata	5
L. r. siliquoidea	<u>1</u>
	(6)

2. Unit 1047N/1036W

A. plicata L. r. siliquoidea L. teres	17 1 <u>1</u>
	(19)

Unit 1048N/1035W

A. plicata L. teres		9 <u>1</u>
	•	(10)

Site	41WM57	(continued)
Page	9	
Area	G	

4.	Unit	1048N/1036W	

A. plicata	9
L. r. siliquoidea	_ <u>1</u>
	(10)

5. Unit 1049N/1035W

A. <u>plicata</u>	18
L. <u>r. siliquoidea</u>	_3
	(21)

6. Unit 1049N/1036W

A. <u>plicata</u> <u>L. r. siliquoidea</u>	2
	(19)

7. Unit 1050N/1026W

<u>L. r</u> .	siliquoidea	<u>1</u>
		(1)

8. Unit 1050N/1035W

A. plicata M. roemeri	1
L. r. siliquoidea	_2
	(10)

9. Unit 1050N/1036W

A. <u>plicata</u> L. <u>r. siliquoidea</u> L. <u>teres</u>	14 1 <u>1</u>
	(16)

1

(2)

Area I [1100N/1062W]

1. <u>Unit 1100N/1062W</u>

A. plicata

L. teres

SITE 41WM73

Gastropoda (4,133)	Specimen Numbers
Helicina orbiculata tropica Rabdotus dealbatus dealbatus Polygyra mooreana Praticolella berlanderiana Pupoides albilabris Polygyra texasiana texasiana Mesodon roemeri Helisoma trivolvis lenta Glyphyalinia indentata paucilirata Zonitoides arboreus Physa virgata Gyraulus parvus Helicodiscus parallelus Succinea sp.	512 3,432 128 5 7 5 1 13 3 5 3 5
Bivalvia (367)	
Amblema plicata Lampsilis radiata siliquoidea Lampsilis teres Cyrtonaias tampicoensis Total number of specimens recovered	230 88 48 1 (4,500)
	, , ,
<u>Test Areas</u>	
<u>Area A</u> [1032N/1067W]	
1. Unit 1032N/1067W	
A. plicata L. r. siliquoidea	4 4
	(8)
Area B [1040N/1048W-1041N/1051W]	
1. <u>Unit 1040N/1048W</u>	
A. plicata L. r. siliquoidea L. teres	28 8 1 (37)

Site	41WM73	(continued)
Page		
Area	В	

2. Unit 1040N/1049W A. plicata L. r. siliquoidea	44 <u>24</u> (68)
3. Unit 1040N/1050W A. plicata L. r. siliquoidea C. tampicoensis	13 17 <u>1</u> (31)
4. Unit 1040N/1051W A. plicata L. r. siliquoidea L. teres	33 3 7 (43)
5. <u>Unit 1041N/1048W</u> <u>A. plicata</u>	<u>14</u> (14)
6. Unit 1041N/1049W R. d. dealbatus A. plicata L. teres	1 25 <u>2</u> (27)
7. Unit 1041N/1050W A. plicata L. r. siliquoidea L. teres	22 2 <u>4</u> (28)

Site 41WM73 (continued) Page 3 Area B

8. Unit 1041N/1051W

R. d. dealbatus	3,431 512
H. o. tropica	128
H. o. tropica P. mooreana P. berlanderiana	5
P. berlanderiana	7
P. albilabris	Ì
M. roemeri	13
H. t. lenta G. i. paucilirata A. plicata I. r. siliquoidea	3
G. i. paucilirata	40
A. plicata L. r. siliquoidea	30
	34
P. t. texasiana	5
Z. arboreus	5 3
P. virgata	5
G. parvus	8
L. teres P. t. texasiana Z. arboreus P. virgata G. parvus H. parallelus S. sp.	7
S. sp.	
-	(4,098)

Area C [1038N/1034W]

1. Unit 1038N/1034W

A. plicata

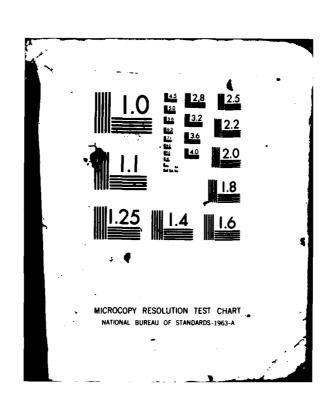
7

(7)

SITE 41WM122

Bivalvia (102)	Specimen Numbers
Amblema plicata	86
Lampsilis radiata siliquoidea	11
Cyrtonaias tampicoensis	1
Tritogonia verrucosa	3
Cyclonaias tuburculata	_1
Total number of specimens recovered	(102)

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SITE 41WM124

Gastropoda (2,308)	Specimen Numbers
Polygyra auriformis	6
<u>Mesodon roemeri</u> Helicina orbiculata tropica	1 1,135
Rabdotus dealbatus dealbatus	273
Polygyra mooreana Anguispira strongylodes	76 563
Pupoides albilabris	2
<u>Polygyra texasiana texasiana</u> Strobilops texasiana	38 2
Glyphpalinia indentata paucilirata	11
Praticolella berlanderiana Mesomphix friabilis	13 185
Zonitoides arboreus	2
Lymnaea humilis	1
Bivalvia (269)	
Amblema plicata	91
Lampsilis radiata siliquoidea Lampsilis teres	65 64
Tritogonia verrucosa	10
Quadrula quadrula Unidentifiable unionid fragments	1 31
Cyclonaias tuberculata	5
Carunculina parva Corbicula manilensis	1
Total number of specimens recovered	(2,577)
·	
Test Areas	
<u>Area A</u> [801N/803W, 801N/804W]	
1. <u>Unit 801N/803W</u>	,
M. roemeri	1
H. o. tropica R. d. dealbatus	590 168
P. mooreana	61
A. <u>strongylodes</u> P. albilabris	388 1
P. t. texasiana	11
S. texasiana	2
P. berlanderiana	2 9 10
M. friabilis	137

and the second second

(52)

<u>Area C</u> [710N/833W, 711N/833W]

1. Unit 710N/833W

R. <u>d. dealbatus</u> A. <u>plicata</u> L. <u>r. siliquoidea</u>	2
L. r. siliquoidea L. teres	<u>5</u>
	(10)

2. Unit 711N/833W

Α	plicata	2
구.	r. siliquoid <u>ea</u>	1
는.		15
<u></u>	teres	7
Ť.	verrucosa	ì
<u>c</u> .	<u>parva</u>	`
		(26

E

SITE 41WM163

Bivalvia (60)	Specimen Numbers
Amblema plicata Lampsilis radiata siliquoidea Lampsilis teres Ligumia nasuta Cyrtonaias tampicoensis Cretaceous oyster	31 5 1 2
Cretaceous oyster Unidentifiable unionid fragments	1 <u>19</u>
Total number of specimens recovered	(60)
Test Areas	
<u>Area A</u> [1001N/1004W]	
1. <u>Unit 1001N/1004W</u>	
Unidentifiable unionid fragments	6
<u>Area B</u> [999N/1056W, 1000N/1054W]	
1. <u>Unit 999N/1056W</u>	
A. <u>plicata</u> <u>Cretaceous oyster</u> <u>Unidentifiable unionid fragments</u>	4 1 10
	(16)
2. Unit 1000N/1054W	
A. plicata C. tampicoemsis	9 1
Unidentifiable unionid fragments	<u>3</u>
	(13)
BHT Collections	
A. <u>plicata</u> L.r. <u>siliquoidea</u>	18 5 1
L. teres L. nasuta	1 2
P. 110 0 0 0 0	<u> </u>

SITE 41WM258

Gastropoda (5,019)	Specimen Numbers	
Helicina orbiculata tropica Rabdotus dealbatus dealbatus Polygyra mooreana Praticolella berlanderiana Anguispira strongylodes Mesomphix friabilis Mesodon roemeri Polygyra texasiana texasiana	3,177 455 116 22 648 571 3	
Bivalvia (315)		
Amblema plicata Lampsilis radiata siliquoidea Lampsilis teres Cyrtonaias tampicoensis Tritogonia verrucosa Quadrula quadrula Uniomerus tetralasmus	12 208 79 9 1 4	
Total number of specimens recovered	(5,336)	
Test Areas		
<u>Area A</u> [N976/W972N975/W972; N976/W973N975/W	972]	
1. <u>Unit N976/W972</u>	_	
L. r. <u>siliquoidea</u> L. <u>teres</u> H. o. <u>tropica</u>	25 14 <u>1</u>	
	(40)	
2. <u>Unit N975/W972</u>		
A. plicata L. r. siliquoidea C. tampicoensis L. teres	2 8 1 1 (12)	
3. <u>Unit N976/W973</u>		
L. r. siliquoidea A. plicata L. teres	22 3 3	

2000

Site	41WM258	(continued)
Page	2	

C. tampicoensis stronglylodes	1
	(33)
it N975/W973	

4. Unit

A. plicata	1
L. r. siliquoidea	23
L. teres	11
C. tampicoensis	1
U. tetraasmus	_1
	(37)

<u>Area B</u> [N976/W999, N976/W1000, N975/W999, N975/W1000, N974/W1001]

1. <u>Unit N974/W1001</u>

H. o. tropica	931
R. d. dealbatus	225
P. mooreana	4
P. berlanderiana	3
A. strongylodes	393
M. friabilis	345
M. roemeri	3
P. t. texasiana	1
	(1,905)

2. Unit N975/W999

L. teres	•	(<u>1</u>)
ini+ N975/W1000		

L. teres L. r. siliquoidea	1 <u>2</u>
	(3)

Unit N976/W999

L. r. siliquoidea L. teres C. tampicoensis	8 5 1
	(14)

Site	41WM258	(continued)
Page	3	

5. Unit N976/W1000

H. o. tropica	2,245 228
R. d. dealbatus	112
P. mooreana	18
P. berlanderiana	255
A. strongylodes	225
M. friabilis	27
P. t. texasiana	· 3
A. plicata	2
I. r. siliquoidea	1
T. teresU. tetralasmus	1
U. Lettalasmus	(6.337)
	(3,117)

Area C [N976/W956]

Unit N976/W956

	1
A. plicata <u>C. r. siliquoidea</u>	16
L. r. siliquoidea	16
L. teres C. tampicoensis	1
	(34)

Backhoe Trenches

1. BHT #1

		(<u>2</u>)
1. r.	siliquoidea	\ <u>=</u> /

2. BHT #4

		45
<u>L</u> .	r. <u>siliquoidea</u>	2
Q.	quadrula	18
	teres	7
₹. `	tampicoemsis	1
	verrucosa	<u> </u>
<u> </u>		(67)
		(67)

3. BHT #4B

Ļ.	r. siliquoidea teres	i
F.		(2

(7)

Site 41WM258 (continued) Page 4 Backhoe Trenches

4. BHT #5A	l
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	R. d. dealbatus L. r. siliquoidea L. teres	1 7 <u>2</u> (10)
5.	BHT #5B	
	L. <u>r. siliquoidea</u> L. <u>teres</u>	7 <u>2</u>
_	DUT 4EC	(9)
6.	BHT #5E	
	L. r. siliquoidea	(<u>2</u>)
7.	BHT #5F	
	L. r. siliquoidea	(<u>1</u>)
8.	BHT #6A	
	A. <u>plicata</u> L. <u>r. siliquoidea</u>	2 <u>5</u>

Molluscan Fauna

Gastropoda (9,497)	Specimen Numbers
Helicina orbiculata tropica	4,378
Rabdotus dealbatus dealbatus	3,089
Polygyra mooreana	1,344
Praticolella berlanderiana	310
Anguispira strongylodes	238
Mesomphix friabilis	62
Pupoides albilabris	4
Mesodon roemeri	. 3
Polygyra texasiana texasiana	68
Biomphalaria obstructa	1
Amblema plicata Lampsilis radiata siliquoidea Lampsilis teres	793 1,420 148
Cyrtonaias tampicoensis	54
Tritogonia verrucosa	_8
Quadrula quadrula	15
Cyclonaias tuberculata	ļ
Megalonaias gigantea	<u></u>
Total number of specimens recovered	(11,937)

Test Areas

<u>Area A</u> [1000N/989W, 1000N/990W, 1001N/989W, 1001N/990W]

1. <u>Unit 1000N/989W</u>

P. berlanderiana	2
A. strongylodes	4
M. friabilis	4
A. plicata	60
T. r. siliquoidea	76
L. teres	4
C. tampicoensis	5
T. verrucosa	
	(157)

A

Site	41 WM267	(continued)
Page	2	
Area	Α	

2. Unit (UUUN/33U)	2.	Unit	1000N/990W
--------------------	----	------	------------

A. plicata	78
A. plicata L. r. siliquoidea	140
L. teres	9
Q. quadrula	_ 1
	(228)

3. Unit 1001N/989W

H. o. tropica R. d. dealbatus	3,770
	1,906
	1,175
	211
A. strongylodes	232
M. friabilis	28
P. albilabris	4
P. t. texasiana	63
M. roemeri	3
A. plicata	31
L. r. siliquoidea	56
L. teres	13
C. tampicoensis	1
C. tampicoensis B. obstructa	i
	(7,494)

4. Unit 1001N/990W

R. d. dealbatus A. plicata	1 75
L. r. siliquoidea	73
<pre>L. teres C. tampicoensis</pre>	1
Q. quadrula	3
•	(157)

<u>Area B</u> [1017N/987W, 1018N/987W, 1017N/985W, 1017N/986W, 1018N/985W, 1018N/986W]

1. Unit 1017N/985W

A. plicata	26
A. <u>plicata</u> L. <u>r. siliquoidea</u>	14
Tamas .	. 2
C. tuberculata	<u> 1</u>
	(43)

(165)

(163)

Site 41WM267 (continued) Page 3 Area B	
2. Unit 1017N/986W	
H. o. tropica R. d. dealbatus P. mooreana A. plicata L. r. siliquoidea C. tampicoensis Q. quadrula	
3. Unit 1017N/987W	
R. d. dealbatus A. strongylodes A. plicata L. r. siliquoidea L. teres C. tampicoensis T. verrucosa Q. quadrula M. gigantea	*}

. <u>Unit 1018N/985W</u>

A. plicata 28
L. r. siliquoidea 1
C. tampicoensis (39)

5. Unit 1018N/986W

R. d. dealbatus	51
R. d. dealbatus A. plicata L. r. siliquoidea	88 1
L. teres	(143)

6. Unit 1018N/987W

	40
A. plicata	85
A. plicata L. r. siliquoidea	7
	_2
Q. quadrula	
	(134)

<u>Area C</u> [1001N/1009W]

1. Unit 1001N/1009W

A. plicata	18
L. r. siliquoidea L. teres	100
L. teres	4
Q. quadrula	3
	(125)

 $\frac{\text{Area } D}{1058 \text{N}/986.5 \text{W}}, \frac{1057 \text{N}/987.5 \text{W}}{1058 \text{N}/986.5 \text{W}}, \frac{1057 \text{N}/988.5 \text{W}}{1058 \text{N}/986.5 \text{W}}, \frac{1058 \text{N}/987.5 \text{W}}{1058 \text{N}/988.5 \text{W}}, \frac{1058 \text{N}/989.5 \text{W}}{1058 \text{N}/989.5 \text{W}}$

1. Unit 1057N/986.5W

H. o. tropica	1
R. d. dealbatus	3
A. plicata	24
L. r. siliquoidea	113
L. teres	15
C. tampicoensis	_2
	(158)

2. Unit 1057N/987.5W

H. o. tropica	582
H. o. tropica R. d. dealbatus P. mooreana	1,167
P. mooreana	162
P. berlanderiana	96
M. friabilis	30
P. t. texasiana	4
A. plicata	32
L. r. siliquoidea	60
L. teres	8
C. tampicoensis	1
	(2.142)

3. <u>Unit 1057N/988.5W</u>

R. d. dealbatus	1
P. mooreana	2
P. t. texasiana	ו
P. berlanderiana	1
A. plicata	116
L. r. siliquoidea	161
T. teres	16

(64)

Site 41WM267 (continued) Page 5 Area D	
C. tampicoensis T. verrucosa Q. quadrula	7 1 <u>1</u> (307)
4. Unit 1057N/989.5W	
R. d. dealbatus A. plicata L. r. siliquoidea L. teres C. tampicoensis T. verrucosa Q. quadrula	1 16 63 13 13 1 1
	(108)
5. <u>Unit 1058N/986.5W</u>	
A. plicata L. r. siliquoidea L. teres C. tampicoensis	13 89 7 <u>2</u> (111)
6. Unit 1058N/987.5W	
R. d. dealbatus A. plicata L. r. siliquoidea L. teres T. verrucosa	1 50 33 6 <u>1</u> (91)
7. <u>Unit 1058N/988.5W</u>	
A. plicata L. r. siliquoidea L. teres C. tampicoensis	11 45 7 <u>1</u>

D-42

8. Unit 1058N/989.5W

R. d. dealtatus	7
A. plicata	42
L. r. siliquoidea	50
L. teres	8
C. tampicoensis	
	(108

Molluscan Fauna

Gastropoda (1,052)	Specimen Numbers
Helicina orbiculata tropica Rabdotus dealbatus dealbatus Polygyra mooreana Praticolella berlanderiana Pupoides albilabris Polygyra texasiana texasiana Physa virgata Helisoma trivolvis lenta Gyraulus parvus Succinea sp.	441 542 33 4 1 20 1 5 2
Bivalvia (99)	
Amblema plicata Lampsilis radiata siliquoidea Lampsilis teres	85 11 3
Total number of specimens recovered	(1,151)
Test Areas	
Area A [107N/98W, 107N/99W, 107N/100W, 108N/99W,	108N/100W]
1. <u>Unit 107N/98W</u>	
L. r. siliquoidea	<u>1</u>
	(1)
2. <u>Unit 107N/99W</u>	
A. plicata	<u>30</u>
	(30)
3. <u>Unit 107N/100W</u>	
<u>A. plicata</u> L. <u>r. siliquoidea</u>	6 1
	_ (7)
4. <u>Unit 108N/99W</u>	
A. plicata L. r. siliquoidea L. teres	9 3 2
	(14)

P. t. texasiana

D-44

20

The state of the s

Site 41WM304 (continued) Page 3 Area B

H. t. lenta G. parvus	5 2
H. t. lenta G. parvus A. plicata S. sp.	2 3
	(1,054

7. Unit 102W/103W & 105N/125W (General site collection)

<u>A</u> .	plicata	1
		(1)

8. <u>Unit 105N/101W</u>

L. r. <u>siliquoidea</u>	<u>1</u>
	(1)

9. <u>Unit 115N/94W</u>

L. r. siliquoidea	1
	(1)

SITE 41WM328

Molluscan Fauna

Gastropoda (3,704)	Specimen Numbers	
Rabdotus dealbatus dealbatus Polygyra mooreana Praticolella berlanderiana Pupoides albilabris Polygyra texasiana texasiana Zonitoides arboreus Physa virgata Helisoma trivolvis lenta Gyraulus parvus Glyphyalinia indentata paucilirata Succinea sp. Strobilops texasiana Mesomphix friabilis Lymnaea humilis Helicodiscus parallelus Rumina decollata Mesodon roemeri	1,945 1,445 32 97 10 3 8 3 34 26 33 4 59 1	
Bivalvia (12)		
Pisidium casertanum Lampsilis radiata siliquoidea Lampsilis teres Amblema plicata Cretaceous oyster Total number of specimens recovered * 13 Hackberry Seeds	1 6 3 1 1 (3,716)	
Test Areas		
<u>Area A [999N/1011-1012W, 999N/1017W, 1000N/1011-1012W, 1000N/1017-1018W, 1001N/1012-1013W, 1001N/1017W]</u>		
1. <u>Unit 999N/1001W</u>		
H. o. tropica R. d. dealbatus P. mooreana P. berlanderiana P. albilabris P. virgata H. t. lenta G. parvus G. i. paucilirata	236 376 1 18 1 1 4 2 3	

D-47

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Site 41WM328 (continued)

Site 41WM328 (continued) Page 3 Area A		D-48
6. <u>Unit 1000N/1017W</u>		
Unidentifiable unionid fragment	1	
	(1)	
7. <u>Unit 1000N/1018W</u>		
L. r. siliquoidea	1	
	(1)	
8. <u>Unit 1001N/1012W</u>		
L. r. siliquoidea	<u>1</u>	
	(1)	
9. <u>Unit 1001N/1013W</u>		
H. o. <u>tropica</u> R. d. <u>dealbatus</u> G. i. pauc <u>ilirata</u>	27 1 1	
<u>-</u>	(29)	
10. Unit 1001N/1017W		
Unidentifiable unionid fragments	1	
	(1)	
11. <u>Miscellaneous</u> (Feature samples)		
H. o. tropica R. d. dealbatus P. mooreana P. berlanderiana P. albilabris S. texasiana H. t. lenta G. i. paucilirata L. r. siliquoidea	149 16 4 9 2 4 1	
L. r. siliquoidea		

(187)

Area B [981N/1001W, 981N/1002W, 982N/1001W, 982N/1002W]

1. Unit 981N/1001W

H. o. tropica	152
R. d. <u>dealbatus</u> P. mooreana	161
	2
P. berlanderiana	5
P. albilabris S. texasiana H. t. lenta G. parvus R. decollata	2
S. <u>texasiana</u>	22
H. t. lenta	3
G. parvus	9
R. decollata	1
G. i. paucilirata	1
L. r. siliquoidea	2
Succinea sp.	
	(361)

2. Unit 981N/1002W

H. o. tropica	91
R. d. dealbatus P. mooreana	104
	8
P. berlanderiana	4
M. roemeri	1
P. t. texasiana	1
Z. <u>arboreus</u>	2
P. virgata	1
G. parvus G. i. paucilirata	1
G. i. paucilirata	5
	(218)

3. Unit 982N/1001W

H. o. tropica	301
R. d. dealbatus P. mooreana	159
P. mooreana	4
P. berlanderiana	22
P. albilabris	4
S. texasiana	21
Z. arboreus	2
H. t. Tenta	12
G. parvus	10
G. i. paucilirata	10
L. teres	2
P. casertanum	_1
	(540)

(548)

The Land

Site 41WM328 (continued) Page 5 Area B

4. Unit 982N/1002W

L. teres	
P. t. texasiana	
H. o. tropica	
R. d. dealbatus	
P. mooreana	
P. berlanderiana	
P. berlanderiana S. texasiana	
5. Lexastana	
Z. arboreus	
H. t. lenta	
G. i. paucilirata	
L. r. siliquoidea	

Appendix E. Quantitative and Qualitative Characteristics of The Complete Stemmed Projectile Points

This appendix presents the data utilized in the statistical analysis of the 146 complete projectile points as discussed in Chapter 10.1. The 26 specimens identified as outliers and consequently not utilized in the final analysis are noted. The remaining sixteen specimens presented were recovered during a subsequent phase of investigation and were not included in the statistical analysis. The coding system for the quantitative and qualitative observations is as follows:

Col. 1-3: Site Number

Col. 4: Area of site: A=1, B=2, C=3, etc.

Col. 5-6: Level

Col. 7-8: Tool Category Stemmed Points = 01

Col. 9-10: Catalog Number

Pedernales 15

Col.13-14: Formal Type Designation

Perdiz 01	Bulverde 16	Group 7 34
reruiz ui	Du Iver de 10	
Scallorn eddy 02	Nolan 17	Group 8 36
Scallorn 03	Travis 18	Group 9 37
Darl 04	Wells 19	Group 10 38
Frio O5	Uvalde 20	Unidentified 39
Fairland 06	Martindale 21	Group 11 40
Fairland/Ensor 07	Hoxie 22	Dawson 42
Ensor 08	Angostura 23	Assymmetrical 43
Montell 09	Buďa 24	Group 14 44
Marcos 10	Group 1 25	Andice 49
Lange 11	Group 2 26	Gower 50
Williams 12	Group 3 27	
Castroville 13	Group 4 28	
Marshall 14	Group 5 30	
	•	

Col. 15: State of Point - 1 Whole

2 Damaged

Group 6 31

3 Fragment

4 Reused as new or other tool type

Col. 16: Burned - 1 Not burned 2 Burned

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E-2
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Col. 17: Blank Type - 1 Bulb or ventral face present
                        2 Cortex on faces
                        3 No trace of original surface
                        4 Reworked older point
Col. 18-47 - Quantitative measurement of point
                 Distances measured to nearest mm.; weight to nearest .1 gm;
                 angles to nearest degree.
               If a measurement could not be made, a zero was entered.
Col. 48-54 - Point body - Retouched
                   Type of secondary retouch - 1
         Col. 48
                                                  Fine
                                               2 Normal
                                                  Absent
         Col. 49
                    Reworked - 1 Not reworked
                              2 Reworked
         Col. 50
                   Distal Tip Shape -
                                           Missing
                                           Rounded
                                           Pointed
                                           Need1e
                                         4
                                           Propeller
         Col. 51
                   Medial Edge -
                                      Straight
                                   1
                                   2
                                      Convex
                                   3
                                      Concave
                                      Recurved
                                      Mixed
          Col. 52
                   Blade Beveling -
                                         One edge
                                         Two edges, alternate
                                         Two edges, unifacial
                                         Two edges, bifacial
                                         Other
                                        Absent
                                 O Cannot be determined
          Col. 53
                    Serration -
                                  1 Absent
                                  2 Present
                   Body Stem Transition -
                                               Weak shoulder
          Col. 54
                                            2
                                               Strong shoulder
                                            3
                                               Barb
                                               Wing
                                               Mixed
Col. 55-61 - Stem Characteristics
          Col. 55
                    Stem Edge -
                                    Straight
                                    Convex
```

3

Concave Recurved Mixed

```
Col. 56
         Grinding - 1 Absent
                     2 Present
Col. 57
         Stem beveling: See codes for blade beveling
Col. 58
         Notching - 1 Corner
                     2 Side
                     3 Basal
                     4 Absent
Col. 59
         Stem Base Shape - 1 Straight
                                            6 Acute
                                              U-shaped
                          2 Convex
                          3 Concave
                                            8 Unshaped (cortex)
                          4 Recurved
                                            9 Other
                          5 Obtuse
         Basal Thinning - 1 Unifacial
Col. 60
                           2 Bifacial
                           3 Absent
Col. 61
         Grinding -
                        Absent
                     2 Present
```

Site Number		Area	Level	Tool Category	Catalog Humber	Type Classification	State of Point	Burned	Blank Type	Maximum Lenth	Maximum Width	Haximum Inickness	Weight (.1 gm)	Stem Lenth	Base of Stem Width	Neck Width	Mid-Stem Width	Depth of Basal Concavity		ength.	Haft Angle	Width at 1/2 Length of Blade	3/4	Type of Sec. Retouch	Distal in Shape	Hedial Edge	Blade Beveling	Blade Stem Transition	.lv	Edge Grinding	Notching	Base Shape Basal Thinning	Basal Grinding
53	*	2	5	1	57	3	1	1	3	23	12	2	12	5	9	4	8	0	_	0	99	6	3	Н	1 2	Н	+	2 2	3	+	2	1 2	Ħ
53	*	1	5	1	40	7	l	ı	Ш	62	26	6	82	11	26	21	21	0	_	0	0	17	12		1 2	17	4	1 2	3	- 1	5 2	3 2	ш
53	*	2	5	1	41	7	1	1	3	44	24	5	45	9	23	15	17	o	22	0	99	14	В		1 2	1 1		1 2	t f	- [5 2	1 2	
56		1	4	1	1086	15	1	1	3	72	29	7	140	19	18	18	15	2	29	D	0	21	13	2	1 2	2	6		H	- [4	3 3	1 T
56	*	6	2	1	543	7	1	1	3	39	22	6	43	13	22	17	17	1	21	0	0	13	7	2	1 2	12	;	ı	3	1 6	4	3 2	1
56	*	4	6	1	343	16	1	1	3	108	45	7	312	18	16	19	16	0	44	0	0	40	27	2	1 2	2	4	ւ 3	1	1 6	1	1 2	1
56		4	5	1	2200	15	1	1	3	64	35	8	135	18	16	21	19	3	35	0	0	21	12	2	1 2	1	6	1/3	1	1 6	4	3 3	1
56	*	2	1	1	532	3	1	1	3	29	14	4	12	6	10	6	8	٥	13	0	85	8	5	2	1 2	1	61	13	3	1 6	1	1 3	1
56	Į	2	3	1	1214	6	1	1	3	55	20	7	72	12	18	15	15	2	21	0	0	16	11	2	1 2	2	d 1	13	3	1 6	1	3 3	ı
56	*	2	3	1	1213	13	1	1	3	61	37	6	114	12	25	23	24	0	37	0	48	24	12	2	1 3	4	d 1	13	3	1 6	1	2 1	1
56	*	2	4	1	1301	_ '		ı	3	57	35	6	104	9	17	16	16	1	35	5	28	29	21	2	il 1	2	61	. 4	լ	1 6	3	3 2	1
56		2	4	1	1907	1		IJ	3	63	36	9	161	17	18	20	19		36	0	0	28	17	2 1	1 2	2	61	. 3	լ	1 6	4	3 3	1
56 56	ı	2	4	1	1561	ŀ	li	1		94	27	9		25	19	17	18		27	0	0	23	15	2	1 2	1	1	ŀ.	1	1 6	4	2 3	[]
56	ł	2	5	1	1939	l I	1		3	58	25	9	129	25	17	16	16		25	٥	0	17	10	2 3		ı	-1	1		1 1	4	1 2	1
56	- 1	3	9	1	1181				3	59	27	8		20	20	16	17	1	26	۱۹	0	19	- 1	2 1		H	1	1	3 :	1 6	4		1
56	ļ			1	2097	15	H	ı		47	25	9	85	25	17	16	17	3	26	°	0	17	13	2	니 2	2	41	2	2	1 6	14	31	1
56	. I	3	9	1	1: 38 2312		1	1	2	81 92	24 25	10 1ა	183 190	30 20	13 13	18	16	ျ	23		0	20	14	2 1		4	41			1 6			1
56	*	3	3	1	172			î	2	61	39	6	131	11	17	13 16	13	- 1	21 36	6	73	22	15	2 1	1	1	d 1	1 1	4	1 6	11	- 1 - 3	1
56		3	3	ī	518				3	69	34	10	204	22	24	22	21	1	33		′3	29 25	19	2 1	1 -	11	1	6	,	1 6	Ιŀ	22	1
56		3	4	1	1828	1		1	3	71	29	7	1	14	14	17	15	í	28		ő	16	- 1	2 1	11		1	2	3 2	2 2 1 6	1 1	11	1
56		3	4	1	242	13	1	1	3	64	47	9	148	_ 1	25	22	17		46	9	53	22		2 1	1	١.	ď			1 6	H	ΙÌ	1
56	*	3	2	. 1	1422	7	ı	ı	3	47	28	5	63	10	25	19	21	L	28	0	73	16		2] 1	1.1		dı		3	1	Н	3 2	i I
L		_[Ш	Ц		丄				1					\perp	[[\perp						1	П		

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Site Number	Area	Level	Tool Category	Catalog Humber	Type Classification	State of Point	Burned	Maximum Lenth	rlaximum Width	Haximum Thickness	Weight (.1 gm)	Stem Lenth	Base of Stem Width	Neck Width	Mid-Stem Width	Depth of Basal Concavity Max. Distance Across Shoulder or Wing Tips	Length	Haft Angle	Width at 1/2 Length of Blade		Type of Sec. Retouch	Distal Tip Shape	Blade Beveling	Serration Blade Stem Transition		Stem Beveling	Base Shape	Basal Grinding
56	3	4	1	930	17	1	1	68	27	7	119	21	12	15	13	0 26	0	0	18	10	_	14	4 4	12		_		2 1
56	3	. 5	1	456	17	ı	1	86	34	9	207	29	17	16	16	0 33	0	0	22	13	2 1	4	4 4	1 2	3 1		44	2 1
56	3	5	1	2269	16	1	1	54	28	6	83	23	16	22	17	0 28	0	0	13	7	2 3	42	a∤ d	1 2	լլի	6	44	2 1
56	3	5	1	146	10	1	1 :	81	31	9	186	12	21	17	18	0 30	0	71	23	13	2 1	4 4	4	13	1 1	6	4 4	2 1
56	3	5	1	1905	18	1	1	87	23	8	156	22	16	18	16	1 22	٥	0	20	12	2 1	4 2	4 4	ւի	5 1	6	4 4	2 1
56	3	, -	1	888	16	1	1	65	25	8	118	17	16	16	15	0 25	0	0	16	9	2 3	11	71	1 2]1]1	6	1 1	2 2
56	3	1 -	1	2243	18	П	1	56	22	8	105		16	17	15	0 21	0	0	18	13	Ш	1 1	11	1 5	1 1	П	11	2 1
56	3		1	1864	18	1 1		56	19	9	95		13	15	13	0 19	0	٥	15	13	2 1	1 1	11	դ	3	11	11	2 1
56	3		1	712	8	((1	72	23	6	97	· ·	22	13	22	0 22	0	0	19	13	2 1	11	11	1 3	3 3	11	11	2 1
56	3	ľ	1	859	10	1 1	-	68	38	10	205		23	19	19	0 37	9	96	27	12	2 1	ΙI	11	14	3 1	11	11	2 1
56	3	1	1	586	17	1 1	1		29	8	170	22	20	18	18	0 29	0	0	18	10	2 3	11	11	1 2	1 2	11	1	111
56	3	ľ	1	1007	17	1 1	1	1	26	8	124	18	16	17	18	0 26	0	0	17 22	9 16	2]	11	11	1	1 1	11	11	111
56 56	4	l	1	277	24 17	1-1	1 :		24	7	139 76	17 21	14	14	15 14	0 21	0	,	13	7	2 2	17	2 6 1 2	1 1 1 2	I 1 1	11	17	1 1 2 1
56	5	1	1	61	21	1	1	1	30	7	75	12	21	16	17	2 30		78	19	10	2 1	11	1 1	1 3	د وا سا	1	. 1	
56	3	1	1	2302	34		1	1	22	8	118	21	13	14	14	0 22	0	0	19	12	2 1	1 1	2 9	1		17		2 4 !
56	2		1	833	22	1 1	1	1	25	7	123		15	15	13	0 24	0	0	17	12	2 1	1 1	1 1	2/4	1 1	ıl	11	2 1
56	4	4	1	1838	39	1	1	54	34	7	109	16	22	20	18	1 34	0	0	21	11	2 1	1	, ,	1 3	3 1	6	1 1	3 1
56	5	4	ı	1885	18	1	1	69	21	6	99	25	15	19	16	0 21	0	0	14	8	2 1	2	2 1	ւի	1 1	6	4 2	1 1
56	3	5	1	742	28	1	1	54	18	7	55	18	13	14	12	0 18	0	0	11	7	2 1	2	2 6	ւի	1 1	6	4 1	3 1
56	3	7	1	977	28	լո	1	62	24	7	101	22	15	16	16	0 23	0	٥	15	10	2 1	2	2 6	ւի	ի ի	6	4 1	3 1
56 1	5	6	1	2321	39	1	1	88	35	7	163	14	10	14	13	0 35	0	٥	20	15	2 1	4	યું લ	13	ի ի	6	4 1	3 4
56 4	2	6	1	1680	39	1	1	92	31	11	235	27	18	22	18	0 28	٥	0	25	16	2 1	2	2 6	15	3 1	6	4 2	2 1

Site Number	Area	1_	Tool Category	Catalog Humber	Type Classification	State of Point		Blank Type	Maximum Lenth	Maximum Width	Haximum Thickness	Weight (.1 gm)	Stem Lenth	Base of Stem Width	Neck Width	Mid-Stem Width	Depth of Basal Concavity Max. Distance Across Shoulder or wing time	Wing Length	Haft Angle	Width at 1/2 Length of Blade	Width at 3/4 Length of Blade		Ulstal IIp Shape	Blade Beveling	Serration Blade Com Tassieia	Stem Edge Shape	Edge Grinding	Acthing	Base Shape Basal Ininning Basal Grinding
57	3		3 1	92	17	1	1	1	78	28	8	142	18	18	15	14	0 28	0	0	20	12	-	4	11	1 2	++	2 2		112
57	8	1	1	74	5	1	1	3	77	21	6	59	9	21	13	13	1 20	0	81	9	6 2	1	2	3 6	2 2		1 6		4 2 1
57	9	1	ւ 1	39	15	1	1	3	53	29	8	100	16	18	17	15	1 29	0	0	20	11]	4	2	2 4	1/2	3	1 6	4	3 3 1
57	٥	!	_	1	15	1	1	1 1	56	25	7	87	17	15	17	16	2 25	0	0	16	10	1	2	14 여	1 2	4	1 6	4	3 2 1
57	0	i	, "	j	15	1	1	,	56	23	7	74	14	14	11	11	3 21	•	0	18	12 2	14	2	4 4	1 2	3	1 6	4	331
57	0	1	1 -	1	13	1		lí	55	34	8	113	14	21	19	20	0 34	0	75	18	10 2	1		4 4	1 3	4	1 6	1	411
57 1	1	į .	1 -]	5	1	1	1)	31	25	6	31	10	25	15	22	2 22		0	13	7 2	14	2 2	4 9	1 2	3	1 6	2	421
57	4	1	1		16	1	1	11	59	27	7	119	15	15	16	15	0 27	l٩	0	21	15 2	14	2 3	4 4	1 2	1	1 2	4	221
57	7		1	149	44	1	1	Ш	75	29	7	127	14	17	18	17	0 29		0	22	13 1	11	1	11	1 2	11	1 6	4	1312
57	3	•	Į .		39	1	1	l I	64	30	8	142	16	17	16	14	0 30		0	24	12 1	14	3 4	9 9	1 2	3	1 6	4	321
57	2	ı	1 -	ł .	15	1	1	Н	50	32	8	87	14	16	19	17	2 32		0	19	10 2	14	2 1	4 4	1 2	լլ	1 6	4	3111
57	2	l	1 "		15	1	1	17	59	29	7	94	15	17	17	18	3 29	0	0	18	10 2	14	2 2	4 4	1 2	1	1 6	4	3112
57	4	3		183	15	1	1	2	70	28	8	116	17	19	18	16	2 27		0	17	10 2	1	2 2	4 4	1 2	1	2 1	4	311
57	j3	5	1 .	ł	15	1	1	3	58	36	9	126	20	17	19	18	3 36	0	0	20	10 2	1	3 4	9	1 2	1	1 6	4	311
57	1	3		163	15	1	1	3	75	36	8	148	20	16	23	20	3 36	이	0	21	11 2	1	2 1	4	1 2	2	1 6	4	3 3 1
57 *	i	1]	56	15	1	1	3	66	32	7	123	22	18	21	20	6 33	0	0	20	11 2	4	2 1	4	1 2	2 :	1 6	3	311
57 57	4	3		21		1	Н	3	82	25	9	137	24	14	17	16	4 25	٥	0	17	9 2		2 2	4		1 1	1 6	4	3 3 1
57	3	3		19	15	IJ	1	3	63	32	10	125	14	11	15	13	2 32	0	٥	19	11 2	11	2 I	11	1 2	11	1 6	4	3 3 1
57	3	3	1 -	133	16		1	3	64	28	7		16	19	17	16	1 27	0	0	19	11 2	ľ	2 2	11	L 2	11	L 6		3 3 2 1
57	2	5	1 1	27 44	11		1	3	80	31	7		13	21	18	18	0 29	0	0	25	15 2	11	2 2	1 1	1 2	1 3			41 11
73	5	8	1	72	14 15	-1	2	3	65 48	37	8	158	1	21	20	18	1 36	0	°	26	18 2		1	4		1 1	1	3	3111
73	1	7	1	29		ı	1	3	64	27	8		15	20	16	17	3 34	٥	ျိ	25	16 2	1	1 4			2]	11	-	311
73	2	10	1	29	15	ı	1	3	90	32	- 1	105		- 1	18	19	0 27	٥	ျိ	19	10 2	1		H	T	2]		ı	2 2 1
		10	ئا		13	_	1	1	30	32	8	199	20	17	15	15	3 30	°	°]	24	19 2	4:	11	٦	3	1 1	16	4	11/2

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Site Number	Area	Level	Tool Category	Catalog Number	Type Classification	State of Point	Burned	Blank Type Maximum Lenth	rlaximum Width	Haximum Thickness	Weight (.1 gm)	Stem Lenth	Base of Stem Width	Neck Width	Mid-Stem Width	Depth of Basal Concavity	Max. Distance Across Shoulder or Wing Tips	Wing Length	Haft Angle	Width at 1/2 Length of Blade	3/4	Type of Sec. Retouch	Reworked Distallin Shane	redial Edge	P	Diado Ctom Transition	E 0	Edge Grinding	Stem Beveling	Base Shape	Basal Grinding
73	2	10	1	27	15	1	1	3 75	31	10	208	15	17	19	18		31	0	٥	28	19	2	1	2 2	$\boldsymbol{\pi}$	1 2	1	7	6 4	$\boldsymbol{\tau}$	3 1
73	2	17	1	18	15	山	4	3 51	26	8	90	16	18	17	17	2	26	0	0	18	11	4	1	4 2	6	1 2	2 3	1	<u>ا</u> ن	3	1 1
73	2	15	1	23	15	1	1	3 84	26	8	161	19	18	15	15	3	26	0	٥	19	11	2	4	2 2	4	1 2	3	12	6 4	43	3 2
73	2	13	1	71	15	1	1	3 65	29	7	135	17	18	17	18	2	29	0	٥	23	19	2	4	2 2	19	1 2	1	1	6 4	11	ᆀ
73	2	15	1	65	18	1	4	3 66	22	9	111	21	17	18	18	1 1	22	0	٥	16	9	2	- [2 2	11	1 1	1	1	6 4	11	2 1
73	2	13	1	14	28	1	긔	3 54	26	6	67	16	17	16	16	1 1	26	0	٥	15	7	2	- 1	4	11	1 2	1	1	6 4	11	1 1
73	2	1	1	42	44	l - I	ᅦ	3 66	28	9	146	Į.	14	15	15		28	0	0	22	13	1	- 1	2 2	1 1	1 2	1	1	6	11	2 1
73	3		1	66	18	H	1	3 51	18	7	56	1	16	15	16	i i	18	٥	0	11	7	2		2 3	1 1	1 1	1		6 4	11	2 1 1 1
73	0		1	4	15	H	1	3 54	28	9	87	13	16 20	16 20	16 20	II	28 36	0	0	31	15	2 2	- E	2 2 1 2	1 1	1 3 1 3	1	1	6 4	T	1 1 1
73 73	0		1	3 46	15 15		1	2 70 3 45	36 27	7	193 74	17	19	18	18	1 1	27	Ü	ő	18	11	2		1 2	П	1 2	1		П	11	1 1
73	0	ľ	1	7	16	1	1	3 53	31	7	109	15	19	18	18	l i	31	0	0	22	12	2	- 1	2 2	ΙI	13	1	l	6 4	11	2 1
73 ±	0	[]	1	59	13	П	1	3 55	38	10	151	8	23	21	21	1 1	38	0	0	28	15	1	- 1	2 2	11	1 3	1	1	6 1	11	2 1
73	0	1	1	35	18	1	1	3 55	20	8	74	18	12	15	15	0	20	0	0	14	8	2	1	2 2	4	ւի	. և	1	6		1
73 *	2	2	1	10	13	1	1	3 60	37	7	125	14	26	24	25	2	37	0	0	24	14	2	1	2 4	6	ւխ	þ	1	6 4	1	1 1
304	0	0	1	32	39	1	1	3 61	25	7	83	14	12	13	11	1	25	0	0	17	8	2	1	2 2	6	ւխ	3	1	14	1 3	2 1
304	0	0	1	2	43	1	2	3 80	26	10	159	22	17	17	13	0	25	0	0	16	10	2	1	2 2		16	5	1	6	6 2	3 1
304	2	2	1	71	18	1	1	3 60	22	8	91	19	16	17	15	이	22	0	0	13	8	2	- 1	2 2	Ιì	16		1	6 4		3 1
304	0	ł	1	24	21	П	1	3 40	31	7	62	9	18	13	14	1 1	31	4	65	20	13	, ,	- 1	2 2	IJ	1	1	,	6 1] }	- 1 1
304	1		1	73	39	11	1	3 68	27	9	163	i i	17	17	14	1 1	22	°	0	24	18	2	- 1	12	, ,	1	1		11	1 3	- 1 - 1
304	2		1	33	16	i	1	3 71	32	9	178	21	17	17	15	1 I	32	ů	l °	25 19	14	1 1	- 1	3 4	11	1 2	1	1	6 4	11	11
304	0	1	[1	34 39	16	П	1	3 70 2 47	32 24	8	142 82	20 15	14	15	14 17	1 1	32 23	°	0	19	13	2	- 1	2 2	1 1	1 5	Γ		6	11	.
304 304	١	1 -	1	45	18	ı	1	3 49	22	٩	106	13	19	18	18	1 1	23 22	l 。	١	17	11	2		2 2		1		1		11	2 1
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Site Number	Area	Level	Tool Category	Catalog Number	Type Classification	State of Point	Burned	Blank Lype Maximum Lenth	rlaximum Width	Haximum Thickness	Weight (.1 gm)	Stem Lenth	Base of Stem Width	Neck Width	Mid-Stem Width	Depth of Basal Concavity Max. Distance Across Shoulder or Wing Tips	gth	Haft Angle	Width at 1/2 Length of Blade	t 3/4	Type of Sec. Retouch	2_!	Hedial Edge	Serration	Blade Stem Transition	Stem Edge Shape	Stem Beveling	Notching Base Shape	Basal Thinning Basal Grinding
267	4	64	1	743	37	1	1	3 65	28	10	202	14	16	17	17	0 26	٥	0	24	16	2 :	1 2	4	d 1	5	1 1	77	4 2	1
267	1	12	1	266	39	$ _1 $	1	3 54	27	10	136	13	15	17	17	1 26	o	0	21	15	2 2	վվ	4	q1	5	4 1	11	4 3	(11
267	0	0	1	273	18	1	1	3 62	22	7	104	13	15	16	16	0 19	0	0	20	13	2	1 2	4	q ı	1	1 1	. 6	4 2	41
267	2	18	1	729	34	1	1	3 65	21	8	87	19	10	10	10	0 21	0	0	14	7	2	4 2	4	ď1	2	1 1	. 6	4	31
267	4	58	1	269	25	1	1	3 68	20	9	105	16	13	14	9	0 20	0	0	16	10	2	42	2	q 1	1	ւի	. 6	4 1	1 1 1
267	1	13	1	279	36	1	2	3 63	17	7	77	15	11	12	12	0 11	٥	٥	14	8	2	니ᆀ	2	41	ի l	3 1	6	4 2	1 1 1
267	4	60	1	725	25	1	1	3 61	20	8	110	18	9	15	9	1 19	0	٥	17	13	2	4 2	2	31	1				141
267	0	0	1	258	15	1	1	3 80	39	9	219	20	20	16	19	4 30	٥	٥	27	18	ıı	닙	4	- [-	u	2 3	6	4 3	
267	2	13	1	716	30	1	1	3 44	17	6	48	15	14	13	12	0 16	0	0	13	9		1 2		- 1	1			1	2 2 1
267	0	0	1	242	28	1	1	3 59	24	8	94	17	18	16	16	0 24	0	٥	15	10		1 2	1		ı	1 1	1 1	4 1	111
267	P	0	1	234	28	1	1	3 67	23	7	92	21	15	15	14	0 23	0	0	12	8	IF	1 2	2	61	1 1	1)1		4 1	111
267	2	16	1	49	28	1	1	3 66	20	7	99	15	14	13	13	0 19	0	0	17	12	Н	L 2	2	61	IJ	3 1		4 1	111
267	4	72	1	277	25	1	1	3 72	23	9	138	20	16	15	13	0 21	٥	0	17	12	1 1	2	2	41	ı	3]	6	4 1	111
267	4	58	1	724	25	1	ı	3 70	20	7	100		16	15	14	0 19	٥	° ا	17	11	11	1 2	2	21	! !	4 2		1 1	111
267	0	0	1	709	25	1	П	3 55	20	7	1	14	15	15	16	0 20	٥	0	16	12	2 2	11	2	21	1 1	1 1	1 1	4 1	111
267	4	60	1	728	42	1	Н	2 63	19	В		18	14	15	15	0 19	^	0	13	9	11	L 2	2	61	l	ן ו	i I	4 8	
267	0	0	1	244	42	1.	l	2 64	22	9	118	22	13	16	14	0 22	0	0	18	12	11	L 2	2	- 1	5	4 2	1	4 8	1 1 1
267	2		1	737	1	1	! !	3 72	22	9	126	20	16	16	15	0 22	°	°	18	10	11	1 2	2	1	l i	3 2	1	H	3 1
267	P		1	764	22	1-1	Н	3 60	22	9	131	16	19	17	17	1 21	°	l °	19	15	2		2	2 2 4 2	U	4 2 1 2	Į,	4 3	111
267	4	70	1	280	22	Ľ,	П	3 77	30	9	179	ı	17	19	16	0 30	l °	0	20 18	15 12	2 2	11	2 1	- 1		֡֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֡֜֜֜֜֡֓֜֜֜֡֡֡֜֜֜֜֜֡֡֡֡֡֡	1	4 3	1 1 1
267	ľ	°	1	255 245	15	ľ	H	3 77 3 71	27	7	148 105	21	22	18	18	0 27	0	"	16	7	2		비	211			6	4 2	111
267 267	1,	19	1 1	107	13 43	ľ	ГΙ	3 59	24	12	120	17	13	16	14	0 23	"	1	18	10	2	1 1	2	61	١.		1	4 1	1 1 1
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Site Number	Area	Leve}	Tool Category	Catalog Number	Type Classification	State of Point	Burned	Blank Type	Maximum Lenth	Maximum Width	ilaximum Thickness	Weight (.) gm)	Stem Lenth	Base of Stem Width	Neck Width	Mid-Stem Width	Depth of Basal Concavity	Max. Distance Across Shoulder or Wing Tips	Wing Length	Haft Angle	Width at 1/2 Length of Blade	A S	Type of Sec. Retouch	Distal 10 Shape	Hedial Edge	Serration	Blade Stem Transition	Stem Edge Shape	Stem Beveling	Base Shape	Basal Ininning Basal Grinding
304	0	٥	1	56	17	1	1	3	48	24	7	75	18	17	16	14	0	24	٥	٥	14	7	2	_	1 1	5 1	Н	3 1	2	4 1	
304	2	3	1	65	18	և	1	3	72	23	10	137	20	12	18	15	0	22	0	0	18	12	2	ւ 2	2	5 1	1	1	6	4 1	2 1
304	0	0	1	43	18	1	2	3	72	20	9	111	22	15	16	14	0	20	0	0	13	9	2	1 2	2	3 1	1	ւի	6	4 3	3 1
304	2	2	1	54	18	ի	1	3	50	19	9	67	20	15	16	14	0	19	0	0	12	6	2	ւ 2	2	5 1	4	3 1	ի	4 1	1 1
328	0	0	1	10	7	ի	1	3	61	26	6	81	12	22	16	16	2	26	0	67	17	11	2	i 2	1	6 1	3	3 þ	6	1 3	3 I I
328 *	2	20	1	8	39	þ.	ŀļ	3	59	34	6	111	8	12	15	13	0	30	٥	٥	27	15	2	ւ 2	2	6 1	2	ւի	6	4 2	
328	2	20	1	12	39	<u> բ</u>	1	3	66	34	8	152	23	16	18	16	0	34	0	٥	22	15	2	L 2	2	5 1	lΙ	ւի	ŧΙ	4 2	1 1 1
124	2	18	1	1	15	<u> </u>	1	3	62	22	8	86	22	14	16	17	3	22	٥	0	13	8	2	- 1	1 1	5 1	1 1	2 J	6	4 3	1
124 🛊	0	٥	1	24	3	۱	1	1	27	13	8	6	8	11	6	8	0	13	٥	86	7	4	2	ı	11	5 1	1 1	ֈ	1 1	1 1	1 1
124	1	36	1	22	13	1	ı	3 (62	27	8	89	12	18	16	17	1	27	°	0	15	9	2	나 2	IΊ	6 2	, ,	17	П	4 3	1 1
124 *	1	18	1	4	8	ŀ	ı	3	32	22	5	33	10	22	15	17	0	21	l °	99	14	8	2	1 2	1 1	6 1	ΙI	41	1 1	2 2	1 1
124	1	17	1	3	4	þ	ı	3	49	16	5	39	12	14	13	14		16	۱°	0	11	6	2	1 2	H	2 1	1		ΠI	4 3	
124	1	18	1	6	7	1	П	3	46	21	6	53	14	17	113	15	ĺ	21	0	0	14	9	2	1	1 1	6 2	11	- (11	4 3	11:
258 *	2	3	1	1	1	[ı	1	44	13	3	15	7	2	5	3	1	12	0	0	11	6	Ιi	L 2	11	6 1	łΙ	- 1	1 1	4 9	• •
258 *	ן,	4	1	20	3	•	H	2	32	14	3	11	6	9	6	7		13	0	0	11	6	1	1 2	1 1	6 2	11	ı	6	1 2 2 3	1 1
258 *	,	6	1	4	3	ľ	l	3	23	8	2	1	5	7	3	3	1	8	l °	99	5	3	2	1 2 1 2	11	6 2 6 2	1 1	3 P	11	- 1	11
258 *	0	8	1	236	39	ľ	П	3	51 61	16 26	9	45 136	10 17	12 14	12	10	1	16 25	0	0	16 20	15	П	2 1	1.1	5 2 5 1	1 1		П	4 3 4 3	11
267	Ĭ,	1	1	250	39	֡֡֞֞֞֞֩֞֩֩֩֞֩֜֞֩֩		3	77	32	11	İ	16	15	16	13	1	25 29	"	ő	21	113	2	- 1	1 1	5 1	1 1	1	11	4 3	
267 267	٥	13	1	730	39			3	62	21	7		17	13	15	14		21	"		16	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	2	1	11	5 1	11	- 1		4 2	11
267	4	58	1	292	25		1	3	65	21	8		lis	17	14	15		21	,	6	16	10			11	5 1	1 1	- 1	П	4 1	3 1
267	4	64	١.	746	39				61	21	7	93	13	13	13	12	1	22	。		18	11	2	. 2	11	5 1	1 1	3 [6	4 1	3 1
267	4	64	1	61	18		ì		66	22	6		20	13	15	15	1	21		0	16	11	H	. 2	1 [1 1	1 1		6	4 1	11
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Site Number	Area	Level	Tool Category	Catalog Number	Type Classification	State of Point	Burned	Blank Type	Maximum Lenth	rlaximum Width	idaximum Thickness	Weight (.1 gm)	Stem Lenth	Base of Stem Width	Neck Width	Mid-Stem Width		Max. Distance Across Shoulder or Wing Tips	tt	Haft Angle	Width at 1/2 Length of Blade	Width at 3/4 Length of Blade	Type of Sec. Retouch	Distal Tip Shape	Hedial Edge	Blade Beveling	Blade Stem Transition	a S	Stem Revelled	:Actching	Rase Shape	Basal Grinding
267	4	62	1	238	28	ı	1	3	75	19	7	90	18	15	13	12	0	19	0	0	14	9	2	1 2	1	2	2	1	2 6	14	1	11
267	0	0	1	58	43	l	1	3	87	24	6	159	23	17	19	17	0	22	0	0	23	15	2	1 2	2	4	ւի	լլ	2 6	4	4	41
267 *	4	64	1	702	43	1	1	3	97	28	11	225	20	11	16	14	0	27	0	0	21	13	2	1 2	2	6	2	1	1 6	4	4	31
267	0	0	1	275	27	l	1	3	67	20	7	94	25	13	19	17	0		0	0	16	9		1 2	IJ		1	11	2 6	1 1	Т	1
267	0	0	1	263	27	1	1	3	65	22	7		17	16	20	18	1		0	0	18	11	1	1 2			1	1	1 6	u		1
267	2	12	1	284	14	ľ	1	2	68	34	5	104	12	18	15	17	°	34	7	55	21	11	2	1 2	2	6	ľ	4	1 6	3	2	41
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267	4	0	1	1072	16	ı	1	3	54	29	8	99	22	15	18	16	1	29	0	0	20	11		1 2	1 1		1	1 1	1 1	11	ì	2 1
267	1	68	1	1061		ı	1	3	69 68	21 27	8	109 128	15 13	16 17	15 17	15	1	21 27	0	0	17 20	10	1	1 2 1 2	ı	1	1	li	3 1 3 1	11	- [2 1 3 1
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360	6	0	1	445	50	1	և	3	44	22	7	70	17	16	19	19	4	22	٥	0	18	13	2	ւ ւ	2	6	վո	<u> </u>	5 6	6	3	3 2
1		1		 				11												l							1		Ì			$\ \ $
404	0	4	1	1042	15	þ	þ	3	72	29	9	136	18	20	18	18	3	29	٥	٥	22	13	1	1 2	ı	6	1 3	łl	3 1	6	- 1	3 1
404	0	4	1	351	ł	ŧ-	П	4	98	26	8		10	20	24	23		24	٥	0	26	i .	1	1 2	ł		վւ	1 1	- 1	П	- [3 2
404	0	4	1	423	1	ŀ	֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֡֓	3	18	10	3	5	6	10	6	8	°	9	0	٥	6	3	П	1 2 . 2	1		<u>ዛ</u> 2	1 1	3 1	1 1	- 1	2 1 1
404 404	0	0	1	197 15	1 1	6	֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֡֓֓֡֓֡֓֓֓֓֡֡֓֡	3	21	10	3	5 7	6	1 2	4	3		10 12	0	0	9	6	2	1 2 1 2	2		ህ2 ህ4	1 :	2 h	11	-	
404	6	5	1	1228		Г	•	3	50	23	8	68	14	15	18	15	Ĭ	23	0	ů	17	10	l	1 2	ı		1 2	ſ	3 6	11	- 1	
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Site Number	Area	Level	Tool Category	Catalog Humber	Type Classification	State of Point	Burned	Blank lype Maximum Lenth	Maximum Width	Haximum Thickness	Weight (.1 gm)	Stem Lenth	Base of Stem Width	Neck Width	Mid-Stem Width	Depth of Basal Concavity	Max. Distance Across Shoulder or Wing Tips		Haft Angle	Width at 1/2 Length of Blade	Width at 3/4 Length of Blade	Type of Sec. Retouch	Distal Tip Shape	Hedial Edge	Blade Beveling	Blade Stem Transition	Stem Edge Shape	Stem Beveling	Wotching	Rase Shape	Basal Grinding
404	0	4	1	881	15	1	1	51	23	7	77	17	20	19	17	3	23	0	0	17	11	2	2	5				3	6	4	3 1
404	0		1	1023	3	IJ	1	,	12	3	5	6	12	6	5	0	9	0	٥	6		2		1	1	1 2		3 1	11	1	44
404	0		1	666 332	16 50	1 1	1	1	27 19	8	97 13	17 6	17	19	17		27 19	0	0	18 10	l .	2 2		5 3		1 2 2 4	1 3	1 1	1 1	4 1	1 1

*Outliers which were not included in statistical analyses.

APPENDIX F

Analysis of Variance Tables of Continuous Attributes of Projectile Points from the North Fork and Granger Reservoirs

The following tables represent two-way analyses of variance obtained for selected non-redundant continuous attributes of the projectile points from the North Fork and Granger Reservoir assemblages. Multiple classification analysis (MCA) tables accompany each ANOVA table. Recommended SPSS procedures (Nie et.al. 1975) were utilized to obtain these tables.

The Separate of the

Legend:

Temporal Period

- 1 = Twin Sisters Phase
- 2 = Late San Marcos Phase
- 3 = Early San Marcos Phase 4 = Round Rock Phase
- 5 = Clear Fork Phase
- 6 = San Geronimo Phase

Reservoir

- 1 = North Fork
- 2 = Granger

MAXIMUM WIDTH BY TEMPORAL PERIOD BY RESERVOIR

Source of Variation	Sum of Squares	DF	Mean Square	F	Sig. of F
Main Effects Temporal Period Reservoir	185.427 139.570 21.324	6 5 1	30.904 27.914 21.324	69.501 62.776 47.956	.000 .000 .000
2-Way Interactions Explained Residual	6.053 191.479 167.193	5 11 376	1.211 17.407 .445	2.722 39.147	.020 .000
Total	358.672	382	.927		

388 Cases Were Processed

Grand Mean = .13			
Variable + Category	N	Unadjusted DEV ≠ N ETA	Adjusted for Independents DEV ≠ N BETA
Temporal Period			
1 2 3 4 5 6	64 22 32 74 168 28	71 1.01 1.61 .36 32 07	72 .90 1.52 .27 28 .13
Reservoir			
1 2	291 97	.20 60 .36	.14 43 .26

BLADE WIDTH AT 1	1/2 ITS	S LENGTH BY	TEMPORAL	PERIOD BY	RESERVOIR

Source of Variation	Sum of Squares	DF	Mean Square	F	Sig. of F
Main Effects Temporal Period Reservoir	65.904 59.468 6.109	6 5 1	10.984 11.984 6.109	17.932 19.417 9.973	.000 .000 .002
2-Way Interactions Explained Residual	3.688 69.593 132.923	5 11 217	.738 6.327 .613	1.204 10.32-	.308
Total	202.516	228	.888		

229 Cases Were Processed

Grand Mean = .08			
Variable + Category	N	Unadjusted DEV ≠ N ETA	Adjusted for Independents DEV ≠ N BETA
Temporal Period			
1 2 3 4 5 6	36 13 21 41 94 18	92 .78 .77 .26 13 .24	95 .74 .73 .19 11 .40
Reservoir			
1 2	168 62	.10 28 .18	.11 28 .18

.06

BLADE WIDTH AT 3/4 ITS LENGTH BY TEMPORAL PERIOD BY RESERVOIR

Source of Variation	Sum of Squares	DF	Mean Square	F	Sig. of F
Main Effects Temporal Period Reservoir	33.03 32.977 .708	6 5 1	5.505 6.595 .708	7.372 8.832 .949	.001 .000 .331
2-Way Interactions Explained Residual	5.389 38.419 162.802	5 11 218	1.078 3.493 .747	1.443 4.677	.210 .000
Total	201.221	229	.879		

230 Cases Were Processed

			
Grand Mean = .06			
Variable + Category	N	Unadjusted DEV ≠ N ETA	Adjusted for Independents DEV ≠ N BETA
Temporal Period			
1 2 3 4 5 6	36 13 27 41 95 18	72 .41 .37 .11 06 .62	73 .39 .36 .09 05 .68
Reservoir			
1 2	168 62	.01 03	.04 10

MAXIMUM THICKNESS BY TEMPORAL PERIOD BY RESERVOIR

Source of Variation	Sum of Squares	DF	Mean Square	F	Sig. of F
Main Effects Temporal Period	83.895 83.745	6 5	13.983 16.749	30.685 36.657	.000 .000
Reservoir	.910	1	.910	1.996	.158
2-Way Interactions	3.937	5	0.787	1.728	.127
Explained Residual	87.832 222.824	11 489	7.985 .456	17.523	.000
Total	310.656	500	.621		

501 Cases Were Processed

Grand Mean = .09			
Variable + Category	N	Unadjusted DEV ≠ N ETA	Adjusted for Independents DEV ≠ N BETA
Temporal Period			
1 2 3 4 5 6	98 39 52 88 193 31	71 31 15 .32 .22 .59	71 32 16 .30 .23 .63
Reservoir			
1 2	383 118	01 .03	.02 08

BLADE LENGTH BY TEMPORAL PERIOD BY RESERVOIR

Source of Variation	Sum of Squares	DF	Mean Square	F	Sig. of F
Main Effects Temporal Period Reservoir	21.988 20.409 .601	6 5 1	3.665 4.082 .601	4.927 5.487 .808	.000 .000 .370
2-Way Interactions Explained Residual	5.290 27.278 160.675	5 11 216	1.058 2.480 .744	1.422 3.334	.217 .000
Total	187.953	227	.828		

228 Cases Were Processed

			
Grand Mean = .03			
Variable + Category	N	Unadjusted DEV ≠ N ETA	Adjusted for Independents DEV # N BETA
Temporal Period			
1 2 3 4 5 6	34 13 27 41 95 18	61 .48 .34 .02 02 .38	60 .49 .35 .04 03 .33
Reservoir			
1 2	167 61	05 .14	03 .09

WEIGHT BY TEMPORAL PERIOD BY RESERVOIR

Source of Variation	Sum of Squares	DF	Mean Square	F	Sig. of F
Main Effects Temporal Period Reservoir	35.552 33.313 3.473	6 5 1	5.925 6.663 3.473	9.021 10.143 5.287	.000 .000 .023
2-Way Interactions Explained Residual	6.322 41.874 105.094	4 10 160	1.581 4.187 .657	2.406 6.375	.052 .000
Total	146.968	170	.865		

171 Cases Were Processed

Grand Mean = .01			
Variable + Category	N	Unadjusted DEV ≠ N ETA	Adjusted for Independents DEV # N BETA
Temporal Period			
1 2 3 4 5 6	22 7 13 33 80 16	-1.06 .56 .13 .26 .08 .42	-1.08 .46 .11 .19 .05 .55
Reservoir			
1 2	119 52	.08 17 .12	.10 23 .17

.23

NECK WIDTH BY TEMPORAL PERIOD BY RESERVOIR

Source of Variation	Sum of Squares	DF	Mean Square	F	Sig. of F
Main Effects Temporal Period	82.302 57.778	6 5	13.717 11.556	33.670 28.365	.000
Reservoir	14.116	ĭ	14.116	34.650	.000
2-Way Interactions Explained Residual	6.366 88.668	5 11	1.273 8.061	3.125 19.786	.009
Total	210.216 298.884	516527	.407 .567		

528 Cases Were Processed

Grand Mean = .21			
Variable + Category	N	Unadjusted DEV ≠ N ETA	Adjusted for Independents DEV ≠ 1: BETA
Temporal Period			
1	104	33	36
1 2 3 4 5	44	.52	.48
3	51	.74	.69
4	92	.26	.20
5	206	22	18
6	31	13	.01
		.48	.44
Reservoir			
1	404	.12	.10
1 2	124	- 39	31

MID-STEM WIDTH BY TEMPORAL PERIOD BY RESERVOIR

Source of Variation	Sum of Squares	DF	Mean Square	F	Sig. of F
Main Effects	84.563	6	14.094	41.413	.000
Temporal Period	66.651	5	13.330	39.169	.000
Reservoir	7.985	1	7.985	23.463	.000
2-Way Interactions	4.592	5	.918	2.699	.020
Explained	89.155	11	8.105	23.816	.000
Residual	168.801	496	.340		
Total	257.956	507	.509		

508 Cases Were Processed

MULTIPLE CLASSIFICATION ANALYSIS

Grand Mean = .13			•
Variable + Category	N	Unadjusted DEV ≠ N ETA	Adjusted for Independents DEV ≠ N BETA
Temporal Period			
1	99	- ,02	04
2	41	.78	.75
2 3	50	.74	.70
4	87	.04	01
4 5 6	200	35	32
6	31	02	.09
·		.54	.51
Reservoir			
1	387	.10	.07
$\bar{2}$	121	_ 34	_ 24

.26

.19

STEM LENGTH BY TEMPORAL PERIOD BY RESERVOIR

Source of Variation	Sum of Squares	DF	Mean Square	e F	Sig. of F
Main Effects Temporal Period	244.651 243.554	6 5	40.775 48.711	109.701 131.051	.000
Reservoir	1.849	1	1.849	4.975	.026
2-Way Interactions	5.638	5	1.128	3.034	.010
Explained Residual	250.289 189.935	11 511	22.754 .372	61.216	.000
Total	440.224	522	.843		

523 Cases Were Processed

Grand	Mean	=	•	1.	L
			٠		•

Variable + Category	N	Unadjusted DEV ≠ N ETA	Adjusted for Independents DEV ≠ N BETA
Temporal Period			
1 2 3 4 5 6	104 45 53 88 202 31	-1.02 69 64 .56 .54 .44	-1.03 70 66 .53 .55 .49
Reservoir			
1 2	400 123	03 .08	.03 11 .07

BASE OF STEM WIDTH BY TEMPORAL PERIOD BY RESERVOIR

Source of Variation	Sum of Squares	DF	Mean Square	F	Sig. of F
Main Effects	188.503	6	31,417	68.073	.000
Temporal Period	150.631	5	30,126	65.275	.000
Reservoir	17.233	1	17.233	37.340	.000
2-Way Interactions	4.650	5	.930	2.015	.075
Explained	193.154	11	17.559	38.047	.000
Residual	203.071	440	.462		
Total	396.224	451	.879		

452 Cases Were Processed

Grand Mean = .15			
Variable + Category	N	Unadjusted DEV ≠ N ETA	Adjusted For Independents DEV ≠ N BETA
Temporal Period			
1 2 3 4 5 6	67 36 46 77 197 29	.51 1.18 1.04 34 47 18	.46 1.12 .98 42 43 01
Reservoir			
1 2	335 117	.17 49 .31	.12 35 .22

DEPTH OF BASAL CONCAVITY BY TEMPORAL PERIOD BY RESERVOIR

Source of Variation	Sum of Squares	DF	Mean Square	F	Sig. of F
Main Effects Temporal Period Reservoir	305.923 286.451 .412	6 5 1	50.987 57.290 .412	83.284 93.579 .673	.000 .000 .413
2-Way Interactions Explained Residual	1.348 307.271 331.819	5 11 542	.270 27.934 .612	.440 45.628	.820 .000
Total	639.090	553	1.156		

554 Cases Were Processed

MULTIPLE CLASSIFICATION ANALYSIS

uranu mean	Grand	Mean	= .	11
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Variable + Category	N	Unadjusted DEV ≠ N ETA	Adjusted for Independents DEV ≠ N BETA
Temporal Period			
1	114	.12	.11
2	45	.73	.73
3	53	65	65
4	93	1.37	1.36
5	218	61	60
6	.31	24	22
		17	U3

APPENDIX G:

LITHIC DEBITAGE AND DEBRIS TABLES
FOR PRIMARY CONTRACT SITES

Table G-1
Lithic Debitage and Debris, Site 41WM53 - Area A

10cm LEVEL	CORE	PRIM. FLAKE	SEC. A FLAKE	SEC.B FLAKE	TERT. FLAKE	MICRO FLAKES	BLADES	RESTRICTED TOTAL - %	CHIPS	CHUNKS	CORE FRAG.	CORE TRIM FLAKES	BURIN SPALLS	BTF	OTHER	LEVEL TOTAL - 1
Surface		1	7	20	61			89 - 1.19	85					2		176 - 1.24
1	1	7	35	80	327		2	452 - 6.05	503	19				11	2	987 - 6.93
2	Ì	16	69	225	725		2	1,037 - 13.87	1,041	21				38	3	2,140 - 15.03
3	1	19	58	293	1,252		10	1,633 - 21.84	1,388	32				12		3,065 - 21.53
4	1	5	51	234	969		6	1,265 - 16.92	908	24	5		2	29	1	2,234 - 15.70
5	1	6	44	146	729		6	932 - 12.47	809	18	2		1	16	1	1,779 - 12.50
6	ļ	5	49	120	807		2	983 - 13.15	971	14				3		1,971 - 13.85
7	į	6	32	90	503		5	636 - 8.51	436	43				11	1	1,127 - 7.92
8	1	2	13	60	345		1	421 - 5,63	284	4				4		713 - 5.01
9	j		1		11			1216	6							1813
10	Ì	3		1	5			912	3					1		1309
11			1	3	3			709	3							1007
Total	3	70	360	1,272	5,737		34	7,476 -100.00	6,437	175	,		3	127	8	14,233 -100.00

Table G-2 Lithic Debitage and Debris, Site 41WM53 - Area B

10cm LEVEL	CORE	PRIM. FLAKE	SEC. A FLAKE	SEC.B FLAKE	TERT. FLAKE	MICRO FLAKES	BLADES	RESTRICTED TOTAL - %	CHIPS	CHUNKS	CORE FRAG.	CORE TRIM FLAKES	BURIN SPALLS	BTF	OTHER	LEVEL TOTAL - %	-
3		6	13	75	321		İ	415 - 8.45	597	5	1					1,018 - 10.0	8
4	İ	14	73	221	752		125	1,185 - 24,13	876	41		1		13	6	2,122 - 21.0	1
5		2	24	87	615		250	978 - 19.92	889	17				33		1,917 - 18.9	8
6		4	35	87	719		117	962 - 19.59	1,210	14				16		2,202 - 21.8	0
7		8	34	90	955		30	1,117 - 22.75	1,253	12			2	16	1	2,401 - 23.7	8
8	l	2	10	23	215		3	253 - 5.16	178	1				7		439 - 4.3	5
Total		36	189	583	3,577		525	4,910 -100.00	5,003	90	1	1	2	85	7	10,099 -100.0	0

Table G-3
Lithic Debitage and Debris, Site 41WM53 - Area C

10cm LEVEL	CORE	PRIM. FLAKE	SEC. A FLAKE	SEC.B FLAKE	TERT. FLAKE	MICRO FLAKES	BLADES	RESTRICTED TOTAL - %	CHIPS	CHUNKS	CORE FRAG.	CORE TRIM FLAKES	BURIN SPALLS	BTF	OTHER	LEVEL TOTAL - \$
1	1	2	4	29	92		1	128 - 6.68	150					2		280 - 7.29
2		5	15	67	207		2	296 - 15.44	525	1				5		827 - 21.52
3	{	10	37	89	343		7	486 - 25.35	472	1				9		967 - 25.16
4	1	2	10	61	215		5 (293 - 15.28	253	•	7			4		551 - 14.34
5		7	19	32	152			210 - 10.96	152		•			-		368 - 9.56
6		4	6	26	151		3	190 - 9.91	178					4		11
7	ļ	3	8	18	89		1	118 - 6.16	62					•		372 - 9.68
8		•	7	13	64			84 - 4.38					1	3		185 - 4.81
	l		•				l		38	1				1		124 - 3.23
9	ĺ	,		13	41		ł	55 - 2.87	31					1		87 - 2.26
10		2	4		17		1	24 - 1.25	7	3				1		3591
11	į			6	27		į	33 - 1.72	14							47 - 1.22
	1						- 1									11
Total	1	36	110	354	1,398		19	1,917 -100.00	1,882	7	1		1	35		3,843 -100.00

Table G-4
Lithic Debitage and Debris, Site 41WM56 - Area A

10cm LEVEL	CORE	PRIM. FLAKE	SEC. A FLAKE	SEC.B FLAKE	TERT. FLAKE	MICRO FLAKES	BLADES	RESTRICTED TOTAL - %	CHIPS	CHUNKS	CORE FRAG.	CORE TRIM FLAKES	BURIN SPALLS	BTF	OTHER	LEVEL TOTAL - 2
							1		ĺ							11
1	ı	1	25	86	330	143	1	587 - 6.73	591	34	1			3		1,216 - 7.62
2)	2	21	112	468	213	1	817 - 9.36	932	28	3			4		1,784 - 11.18
3	1	5	66	218	1,180	390	31	1,891 - 21.67	2,042	30	4			9	1	3,977 - 24.92
4	5	7	68	261	951	437	6	1,735 - 19.88	1,240	20	5	1		18		3,019 - 18.92
5	2	4	42	168	887	201	7	1,311 - 15.02	656	15	5		1	9		1,997 - 12.51
6	2	5	20	82	647	117	9	879 - 10.07	496	9				12		1,396 - 8.75
7	1	5	20	90	494	216	3	828 - 9.49	557	11	1			13		1,410 - 8.84
8	ł	1	22	96	424	116	2	661 - 7.57	455	4				8		1,128 - 7.07
9	İ			2	9	7		1821	12					1		3119
	{								1							11
Total	13	27	284	1,115	5,390	1,840	60	8,727 -100.00	6,981	151	19	1	1	77	1	15,958 - 100.00

 $\label{eq:continuous} Table \ G-5$ Lithic Debitage and Debris, Site 41WN56 - Area B

10cm LEVEL	CORE	PRIM. FLAKE	SEC. A FLAKE	SEC.B FLAKE	TERT. FLAKE	MICRO FLAKES	BLADES	RESTRICTED TOTAL - %	CHIPS	CHUNKS	CORE FRAG.	CORE TRIM FLAKES	BURIN SPALLS	BTF	OTHER	LEVEL TOTAL - \$
,	١.															
1	١ ١	24	102	249	1,144	294	2	1,816 - 16.66	2,651	58	14			7		4,546 - 23.10
2	5	10	40	131	643	169	2	997 - 9.15	793	25	4	1		1		1,821 - 9.25
3	2	6	67	259	7,273	288	12	1,907 - 17.50	1,298	19	2			16		3,242 - 16.47
4	4	7	44	191	817	320	21	1,404 - 12.88	830	7	_	3	2	11		2,257 - 11,47
5	l	8	38	173	1,073	318	5	1,615 - 14.82	1,002	33	8	•	ī	12		11
6	1	3	39	106	901	242	9	1,301 - 11.94	686	27	,		•			2,671 - 13.57
7	}	4	15	38	413	108		578 - 5.30	386		1			10	1	2,026 - 10.29
8	١,	2	12	33					1	6				5		975 - 4.95
-	1 :	•			258	110	'	417 - 3.83	257	2				6		682 - 3.47
9	' '		11	20	213	66	ן י	312 - 2.86	229	4	1		1	1		548 - 2.78
10		2	11	30	189	81	[313 - 2.87	197	4				5		519 - 2.64
11]		3	5	104	44		156 - 1.43	104					2		262 - 1.33
12	Ì			7	24	21	ì	5248	22					•		11
13	İ			4	20	7		3128	29					'		7538
	ł			•		,	1	3120	29							6030
Total	12	66	382	1,246	7,072	2,068	53	10,899 -100.00	8,484	185	30	4	4	77	1	19,684 -100.00

9.

Table G-6
Lithic Debitage and Debris, Site 41WM56 - Area C

10cm LEVEL	CORE	PRIM. FLAKE	SEC. A FLAKE	SEC.B FLAKE	TERT. FLAKE	MICRO FLAKES	BLADES	RESTRICTED TOTAL - %	CHIPS	CHUNKS	CORE FRAG.	CORE TRIM FLAKES	BURIN SPALLS	BTF	OTHER	LEVEL TOTAL - 3
							ĺ		_							1
1	5	28	325	847	4,086	1,179	13	6,483 - 8.29	9,287	65	4	3	3	44	ì	15,890 - 10.42
2	4	62	421	1,202	5,857	1,869	23	9,438 - 12.07	14,285	62	5	6	2	62		23,860 - 15.65
3	10	34	325	1,249	5,441	1,946	38	9,043 - 11.57	9,997	30	4	5	6	186	5	19,276 - 12.64
4	7	15	188	764	3,265	1,592	26	5,857 - 7.49	5,018	13	7	1	3	39	4	10,942 - 7.18
5	5	10	98	556	2,823	1,019	14	4,525 - 5.79	3,510	12	7	5		44		8,103 - 5.31
6	3	8	135	507	2,590	1,211	70	4,524 - 5.79	2,829	17	1	4	1	63	1	7,440 - 4.88
7	1	22	256	1,042	5,366	2,639	129	9,455 - 12.10	6,790	23	8	2	2	134		16,414 - 10.76
8		18	255	1,211	7,012	3,660	120	12,276 - 15.70	10,038	19	5	4	2	208	1	22,553 - 14.79
9	3	10	244	920	5,260	3,339	95	9,871 - 12.63	6,883	29	3	1		154		16,941 - 11.11
10	1	7	98	398	1,883	1,822	44	4,253 - 5.44	2,746	6				47		7,052 - 4.62
11		2	30	167	686	674	16	1,575 - 2.01	906	6	2			22		2,511 - 1.65
12		2	4	73	370	353	6	808 - 1.03	571	3	1			14		1,39792
13				2	17	11		3004	15							4503
14					5	10		1502	6							2101
15			1		1	1		301	6							901
16				1	4	4		901	4							1301
17					7	3		1001	10							2001
Total	39	218	2,380	8,939	44,673	21,332	594	78,175 -100,00	72,901	285	47	31	19	1,017	12	152,487 -100.00

Table G-7
Lithic Debitage and Debris, Site 41WM56 - Area D

10cm LEVEL	CORE	PRIM. FLAKE	SEC. A FLAKE	SEC.B FLAKE	TERT. FLAKE	MICRO FLAKES	BLADES	RESTRICTED TOTAL - %	CHIPS	CHUNKS	CORE FRAG.	CORE TRIM FLAKES	BURIN SPALLS	BTF	OTHER	LEVEL TOTAL - %
i							1									
1		1	10	23	66	24		124 - 1.92	139	2	1			1		267 - 2.38
2	2	10	66	146	669	180	1	1,074 - 16.63	1,157	28	1	1		1		2,262 - 20.21
3	2	6	25	96	400	225	3	757 - 11.72	611	8	1		1	5		1,383 - 12.36
4	2	4	49	142	705	199	4	1,105 - 17.11	722	3	1			8		1,839 - 16.43
5	5	3	21	137	819	205	6	1,196 - 18.53	789	3	1			8		1,997 - 17.84
6		1	37	104	613	187	2	944 - 14.62	559	3	2			4		1,512 - 13.51
7	2	2	12	65	447	163	!	691 - 10.70	363	1	2			9		1,066 - 9.52
8)	2	5	30	201	76		314 - 4.86	206	4				2		526 - 4.70
9			5	18	103	38	1	165 - 2.56	36					1		202 - 1.80
10			1	7	30	4	'	4265	14							5650
11				2	19	3		2437	30							5448
12	}			3	14	4		2133	۰							3027
	ì								ľ							1
Total	13	29	231	773	4,086	1,308	17	6,457 -100.00	4,635	52	9	1	1	39		11,194 -100.00

Table G-8
Lithic Debitage and Debris, Site 41WM56 - Area E

10cm LEVEL	CORE	PRIM. FLAKE	SEC. A FLAKE	SEC.B FLAKE	TERT. FLAKE	MICRO FLAKES	BLADES	RESTRICTED TOTAL - %	CHIPS	CHUNKS	CORE FRAG.	CORE TRIM FLAKES	BURIN SPALLS	BTF	OTHER	TOTAL - :
1	2	15	£7.	162	832	328	5	1,399 - 13.41	2,045	28	3		1	9		3,483 - 17,27
2	3	7	70	260	1,210	267	5	1,822 - 17.47	2,139	16	1		1	8		3,987 - 19.77
3	1	7	51	206	890	325	12	1,491 - 14,29	1,286	32	13			5		2,825 - 14.01
4	} ,	7	44	224	665	252	35	1,228 - 11.77	973	7	1			4		2,213 - 10.97
5	,	4	27	110	565	182	16	905 - 8.68	521	16	3			14		1,459 - 7.24
6	}	2	25	84	559	184	25	879 - 8.43	533	23	2	1		7		1,545 - 7.66
7	}	8	36	168	936	291	8	1,447 - 13.87	991	11	1			14		2,464 - 12.22
8	1	2	20	69	556	213		861 - 8.25	578	6	3			9		1,457 - 7.22
9	1	1	11	47	211	107	4	382 - 3.66	313	5	3			5		708 - 3.51
10				2	9	7		1817	8							2613
Total	9	53	339	1,332	6,433	2,156	110	10,432 - 160,00	9,487	144	26	1	2	75		20.157 - 100.00

Table G-9 Lithic Debitage and Debris, Site 41WM56 \sim Area F

10cm LEVEL	CORE	PRIM. FLAKE	SEC. A FLAKE	SEC.B FLAKE	TERT. FLAKE	MICRO FLAKES	BLADES	RESTRICTED TOTAL - %	CHIPS	CHUNKS	CORE FRAG.	CCRE TRIM FLAKES	BURIN SPALLS	BTF	OTHER	LEVEL TOTAL - 2
1	,	6	66	208	1,066	427	8	1,782 - 40.35	2,623	43	1	1	1	10		4,461 - 47.04
2	3	8	48	129	785	491	5	1,469 - 33.26	1,535	15		ì	3	10	1	3,034 - 31,99
3	1	3	14	55	433	227	2	735 - 16.64	605	1		2		6	•	1,349 - 14,23
4	[2	10	10	121	82	- 1	225 - 5.10	114	3	3			-		345 - 3.64
5		1	2	12	62	33	2	112 - 2.54	51	2						165 - 1.74
6	ĺ	1	2	8	23	52	1	87 - 1.97	33				1			121 - 1.28
7	1				3	3	-	614	1					1		808
Total	5	21	142	422	2,493	1,315	18	4,416 - 100, 00	4,962	64	4	4	5	27	1	9,483 ~ 100.00

Table G-10
Lithic Debitage and Debris. Site 41WM73 - Area A

10cm	CORE	PRIM. FLAKÉ	SEC. A FLAKE	SEC.B FLAKE	TERT. FLAKE	MICRO FLAKES	BLADES	RESTRICTED TOTAL - %	CHIPS	CHUNKS	CORE FRAG.	CORE TRIM FLAKES	BURIN SPALLS	втг	OTHER	TOTAL - \$
	 								1					_		289 - 6.45
	1		6	9	59	22		129 - 5.77	179	10	1			3		1 (
	}		4	15	65	41		125 - 5.59	172	4	1					302 - 6.74
2	1	_	•		169	63	1	276 - 12.35	320	12	2	-		4		614 - 13.71
3	1	1	8	34				390 - 17.45	385	14	2			3		794 - 17.73
4	i	4	11	31	511	132	1	i	1	,,	•			7		808 - 18.04
5	(1	13	46	161	191	3	413 - 18.48	381	,						771 - 17.21
6	1	2	3	50	234	124	4	417 - 18.65	338	9		,				! (
7	j	1	7	30	168	89	2	297 - 13.29	203	8	1			4		513 - 11.45
,)	•	7	36	101	54		172 - 7.70	181	1				4		J58 - 7.99
8	1		,	,,,	6	7		1672	13	1						3068
9	į		Z	ı	•	′			1							11
Tota1		9	55	232	1,174	723	9	2,235 -100.00	2,172	66	7	1		31		4,479 _100,00

Table G-11
Lithic Debitage and Debris, Site 41WM73 - Area B

10cm LEVEL	CORE	PRIM. FLAKE	SEC. A FLAKE	SEC.B FLAKE	TERT. FLAKE	MICRO FLAKES	BLADES	RESTRICTED TOTAL - 1	CHIPS	CHUNKS	CORE FRAG.	CORE TRIM FLAKES	BURIN SPALLS	BTF	OTHER	LEVEL TOTAL - \$	•-
1			8	24	100	55		187 - 2.08	116	12	2					317 - 2.06	-
2	1		5	13	28	24		7179	40	4	2					11776	
3				8	22	10		4044	23	3	-					11	
4	}			7	30	24		6168	27	4				,		6643	
5	ļ	1		8	45	16		7078	43	Ā				,		9361	
6	ł		1	16	43	8	2	7078	38	2				,		11877	
7			1	10	29	6	_	4651	24					1		11172	
8	}			5	33	9	2	4954	18					2		7247	
9				8	51	13	-	7280	42	•						7146	
10		2	9	35	225	38	2	311 - 3.46	208	13	1					11575	
11	1	1	10	31	265	35	4	347 - 3.86		-	_			3		535 - 3.48	
12		4	10	44	309	83	3		179	13	3			2		544 - 3.54	
13	2	3	15	51	467	113	,		294	10	3			2	2	764 - 4.97	
14	`	Ā	27	104	787		,	652 - 7.25	352	22	8			2		1,036 - 6.74	
15	1	2	19	133	783	234	6	1,162 - 12.92	682	50	3			7		1,904 - 12.39	
16	١ '	4	32	149		235	6	1,179 - 13.11	1,082	24	7			17		2,309 - 15.02	
17)	•	_	-	820	336	10	1,351 - 15.02	925	30	6	3		17		2,330 - 15.16	
18			22	154	835	375	9	1,397 - 15.53	916	31	10			15		2,369 - 15.42	
	ļ	•	29	92	501	295	7	928 - 10.32	590	26				13	J	1,557 - 10.13	
19		,	10	35	299	164	4	513 - 5.70	361	10	1			4	1	889 - 5.78	
20	j			2	19	12	1	3438	18							5234	
Total	5	28	198	929	5,691	2,085	57	8,993 -100.00	5,978	262	46	1		87	2	15,369 -100.00	6-12

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Table G-12
Lithic Debitage and Debris, Site 41WM73 - Area C

10cm LEVEL	CORE	PRIM. FLAKE	SEC. A FLAKE	SEC.B FLAKE	TERT. FLAKE	MICRO FLAKES	BLADES	RESTRICTED TOTAL - %	CHIPS	CHUNKS	CORE FRAG.	CORE TRIM FLAKES	BURIN SPALLS	BTF	OTHER	LEVEL TOTAL - \$
							Ì									
1	ŀ			18	64	19		101 - 5.84	108	11						220 - 6.47
2	1		8	20	111	31	4	174 - 10.06	188	9	1			2		374 - 11.01
3		1	10	31	177	69	- 1	289 - 16.72	292	9	1	2		4		597 - 17.57
4		3	10	14	132	49	2	210 - 12.15	288	5				2		505 - 14.86
5		4	6	21	107	41	1	180 - 10.41	98	9	2					289 - 8.51
6	ł		2	10	27	27	5	71 - 4.11	34	1				2		108 - 3.18
7			1	6	24	7	1	39 - 2.25	23	2						64 - 1.88
8	l		1	5	38	7	1	52 - 3.01	57	6						115 - 3.38
9	ì		8	32	251	89		380 - 21.98	257	14	1			13		665 - 19.53
10		1	6	27	92	34		160 - 9.25	157	3				3		323 - 9.51
11	ŀ		1	7	19	14	ĺ	41 - 2.37	40					1		82 - 2.41
12	1			2	15	2		19 · 1.10	9						i	2882
13				1	- 4	8		1375	15							2882
Total		9	53	194	1,061	397	15	1,729 -100.00	1,566	69	5	2		27	į	3,398 -100-00

Table G-13
Lithic Debitage and Debris, Site 41WM73 - Area D

10cm LEVEL	CORE	PRIM. FLAKE	SEC. A FLAKE	SEC.B FLAKE	TERT. FLAKE	MICRO FLAKES	BLADES	RESTRICTED TOTAL - %	CHIPS	CHUNKS	LORE FRAG.	CORE TRIM FLAKES	BURIN SPALLS	8TF	OTHER	LEVE TOTAL -	
1			2	4	14	11		31 - 11.88	40	1				_		,,	14.87
2	•		1	4	22	15		42 - 16.09	40	1				•		l t	16.90
3			4	3	30	34	ĺ	71 - 27.20	54	2						fi	25.87
4			2	11	28	18		59 - 22.61	50	3						* [22.81
5			1	1	12	14	ĺ	28 - 10.73	22							11	10.18
6				5	6	13		24 - 9.19	15							1)	7.94
7	ĺ				1	3		4 - 1.53	1							LI	1.02
8	1			1		1	}	277	ŀ							2 -	
	ĺ						([11	
Total	l		10	29	113	109	j	261 -100.00	222	7				1		491 -	100.00

Table G-14
Lithic Debitage and Debris, Site 41WM73 - Area F

10cm LEVEL	CORE	PRIM. FLAKE	SEC. A FLAKE	SEC.B FLAKE	TERT. FLAKE	MICRO FLAKES	BLADES	RESTRICTED TOTAL - %	CHIPS	CHUNKS	CORE FRAG.	CORE TRIM FLAKES	BURIN SPALLS	BTF	OTHER	LEVEL TOTAL - S
,]	2		2	19	11		34 - 4.49	24							58 - 5.17
2	1	-	2	3	17	11	i	33 - 4.36	36	3						72 - 6.41
3	[4	3	2		9 - 1.19	12							21 - 1.87
4	1			1	2	2		5 5	ł							545
5	}				2	1		346	6	2				1		12 - 1.07
6]			2	21	2		25 - 3.30	9							34 - 3.03
7			3	13	55	12	1	84 - 11.10	64	1				3		152 - 13.53
8	1		4	16	78	33	1	132 - 17.44	79	8	1			7		227 - 20.21
9	1		2	16	100	40	122	280 - 36.99		8						288 - 25.64
10	1	1	2	11	93	23	1	131 - 17.30	85	4				3		223 - 19.86
11	1			2	12	3		17 - 2.24	4							21 - 1.87
12				1		3		453	6							1089
Total	}	3	13	71	402	143	125	757 -100.00	325	26	1			14		1,123 -100.00

Table G-15
Lithic Debitage and Debris, Site 41WM124 - Area A

10cm LEVEL	CORE	PRIM. FLAKE	SEC. A FLAKE	SEC.B FLAKE	TERT. FLAKE	MICRO FLAKES	BLADES	RESTRICTED TOTAL - %	CHIPS	CHUNKS	CORE FRAG.	CORE TRIM FLAKES	BURIN SPALLS	BTF	OTHER	LEVEL TOTAL - \$
1		1	2	7	29	3	1	4375	35	3				2		8371
2	1	2	13	50	63	11	1	110 - 1.92	91	2				3		206 - 1.76
3	1	3	8	30	90	26	- 1	158 - 2.76	174					ì		333 - 2.85
4	1		8	32	87	19	1	148 - 2.59	151					4		303 - 2.59
5	1		13	56	135	31	4	240 - 4.20	366	4			1	٠		620 - 5.30
6		3	10	45	120	17	2	197 - 3.45	253	6		1	•	,		464 - 3.97
7			15	50	129	18	1	213 - 3.73	157	2	1	1		ì		375 - 3.21
8			15	49	154	22	2	242 - 4.24	191	2	•	•		,		
9	}	3	8	48	124	22	2	207 - 3.62	163	2						11
10	1	1	8	35	109	5	1	160 - 2.80	191	-	,			,		376 - 3.21
11	1	1	10	18	64	21		114 - 2.00	136	3	•			,		355 - 3.03
12	l	1	10	16	99	22	3	157 - 2.64	168	,				!		254 - 2.17
13	ļ .	2	9	35	106	30	,	183 - 3.20	178				1	2		323 - 2.76
14	}		11	27	129	39	' !	206 - 3.61		3	_					364 - 3.11
15	1	5	13	34	117	19	2		231	2	2			1		442 - 3.78
16	1	•	6	41	109	35	5	191 - 3.34	190	6			2	4		393 - 3.36
17		1	17	30	166		•	196 - 3.43	196	3	1			4		400 - 3.42
18	3	•	19			35	• 1	253 - 4.43	268	7	5			3		534 - 4.56
19				124	279	12	_	437 - 7.65	632	2	2	1		2		1,076 - 9.20
20	١.	•	19	63	161	29	'	278 - 4.86	280	7		1		9		575 - 4.91
20	, I	5	24	79	201	18	3	331 - 5.79	348	8	1	1		4		693 - 5.92



Table G-15 (continued)
Lithic Debitage and Debris, Site 41WM124 - Area A

10cm LEVEL	CORE	PRIM. FLAKE	SEC. A FLAKE	SEC.B FLAKE	TERT. FLAKE	MICRO FLAKES	BLADES	RESTRICTED TOTAL - %	CHIPS	CHUNKS	CORE FRAG.	CORE TRIM FLAKES	BURIN SPALLS	BTF	OTHER	LEVEL TOTAL - \$
21		3	26	29	102	5	1	166 - 2.91	190	18				3		377 - 3,22
22]	2	7	25	70	10	5	119 - 2.08	91					3		213 - 1.82
23	l	1		14	55	18	2	90 - 1.57	86	2			1	2		181 - 1.55
24	ĺ	2	3	23	46	23	3	100 - 1.75	80					2		182 - 1.56
25	1	1		21	52	13	5	92 - 1.61	82					1		175 - 1.50
26	i	2	8	23	69	11	3	116 - 2.03	112	2				3		233 - 1.99
27	i	3	4	17	64	15	ı İ	104 - 1.82	66	4				4		178 - 1.52
28		1	7	34	61	9	,	119 - 2.08	65	2		1		2		189 - 1.62
29		2	1	26	57	20	2	108 - 1,89	93	1		•		1		203 - 1,74
30	ł		6	22	59	11	1	98 - 1,71	72	1			2	2	1	175 - 1.50
31	3	2	8	35	68	21	2	139 - 2,43	80	3	1		1	Ā		228 - 1.95
32	1		2	35	60	31	1	128 - 2,24	123	•	•		•	•		251 - 2.15
33	ĺ		3	16	25	10	l	5494	47							10186
34	ł		1	14	39	10	- 1 l	65 - 1,14	46					4		11598
35	1	3	1	11	22	7		4579	26	4				,		7766
36	}		1	17	26	8	, ,	5393	34	i				,		9077
37	1	1	4	15	37	3	- i	61 - 1.07	58	•				,		
	1					•			- 30					3		123 - 1.05
Total	14	56	320	1,216	3,383	659	67	5,715 -100.00	5.750	101	14	6	8	104		11,698 -100.00

Table G-16
Lithic Debitage and Debris, Site 41WM124 - Area B

10cm LEVEL	CORE	PRIM. FLAKE	SEC. A FLAKE	SEC.B FLAKE	TERT. FLAKE	MICRO FLAKES	BLADES	RESTRICTED TOTAL - %	CHIPS	CHUNKS	CORE FRAG.	CORE TRIM FLAKES	BURIN SPALLS	BTF	OTHER	TOTAL - \$	
2			5	5	16	1		27 - 1.15	21	1					1	4997	
3	ł	,	26	86	243	34	2	392 - 16.65	374	6	1			12	ì	785 - 15.56	
4	١,	4	22	59	197	39		322 - 13.68	343	8		1		8	ļ	682 - 13.52	
5	1	•	6	17	58	14	3	98 - 4.16	117	1		1		2	}	219 - 4.34	
6	(13	66	137	24		240 - 10.20	333	2		1		7	Į.	583 - 11.55	
7	ł	1	9	32	76	25	2	145 - 6.16	216	2				2	1	365 - 7.24	
8	}	·	6	18	57	18	7	101 - 4.29	103		3			2	}	207 - 4.11	
9	Ì	•	6	7	40	7	1	61 - 2.59	82					1]	144 - 2.86	
10	1	3	6	23	56	21		109 - 4.63	145		1			3	1	258 - 5.12	
11	1		6	25	58	17	1	111 - 4.72	131	6				1		249 - 4.94	
12)	5	6	23	55	18	3	110 - 4.67	89	1	1			1		202 - 4.01	
13	١,	2	8	13	66	15	2	107 - 4.55	120	5				1		233 - 4.62	
14	1	ī	5	23	53	16		98 - 4.16	132	4						234 - 4.64	
15	1	•	15	41	41	11	1	109 - 4.63	128	2				3		242 - 4.80	
16	ļ		5	15	33	8		61 - 2.59	80							141 - 2.80	
17	1	4	6	16	24	•		50 - 2.12	59							109 - 2.16	
18	1	•		26	43	1	3	78 - 3.31	58	1						137 - 2.72	
19	1	,	3	16	31	4	-	55 - 2.34	30							85 - 1.69	
20	1	2	4	12	26	5	1	50 - 2.12	20							10 - 1.39	
21	1	•	1	,	10		•	1668	l n							2754	
22	Ì		•	5	9			1460	6	1						2142	
24	-			•	•				1							{ }	ရာ
Total	2	29	163	532	1,329	279	20	2,354 -100.00	2,598	40	4	3		43		5,042 -100.00	18

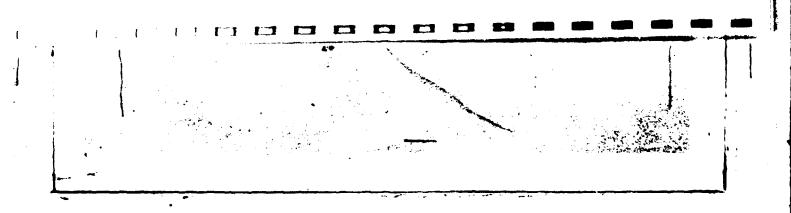


Table G-17
Lithic Debitage and Debris, Site 41WM124 - Area C

10cm LEVEL	CORE	PRIM. FLAKE	SEC. A FLAKE	SEC.B FLAKE	TERT. FLAKE	MICRO FLAKES	BLADES	REST	RICTED - %	CHIPS	CHUNKS	CORE FRAG.	CORE TRIM FLAKES	BURIN SPALLS	BTF	OTHER	LEVEL TOTAL - %
	ł				_		}	5	59	,							747
1	i				5		ļ	-		١ '							11
2	2	1	9	22	48	9	2	93	- 10.90	46							139 - 9.29
-	-	•		23	86	15	1	133	- 15.59	94	1			1	4		233 - 15.56
3	1	3	9				: I			424	•	1	2		6		1,006 - 67.20
4	1	7	33	106	308	110	6]	5/0	- 66.82	969	3	•					11
5	1		2	10	29	10	1	52	- 6.10	58					1		111 - 7.41
-	1		_							1 1							107
6	1						1			1							11
Total	2	11	49	161	476	144	10	853	-100.00	625	4	1	2	1	11		1,497 -100.00

Table G-18
Lithic Debitage and Debris, Site 41WM133 - XU-5

10cm LEVEL	CORE	PRIM. FLAKE	SEC. A FLAKE	SEC.B FLAKE	TERT. FLAKE	MICRO FLAKES	BLADES	RESTRICTED TOTAL - %	CHIPS	CHUNKS	CORE FRAG.	CORE TRIM FLAKES	BURIN SPALLS	BTF	OTHER	LEVEL TOTAL - \$
2 3 4 5 6 7 8 9 10 11	1 2 2	3 4 11 1 1 2 1	12 5 11 18 8 6 2	26 28 41 52 31 25 3 3	39 58 75 100 35 55 9 5 2	9 18 16 32 19 10 2 2	2 2 1 7	91 - 11.21 116 - 14.28 157 - 19.33 212 - 26.11 94 - 11.58 101 - 12.44 15 - 1.85 12 - 1.48 561 337 337	30 34 77 101 66 76 4 5	3 2 6 6 2 2 2	1 1 1	1	1	2 2 2 2 1	2 2	128 - 10.17 156 - 12.40 244 - 19.40 322 - 25.60 165 - 13.12 180 - 14.31 20 - 1.59 20 - 1.59 971 324 324
13 Total	5	24	63	1 213	1 379	111	17	337	5 402	24	4	1	1	9	5	863

Table G-19 Lithic Debitage and Debris, Site 41WM133 \sim XU-6

10cm LEVEL	CORE	PRIM. FLAKE	SEC. A FLAKE	SEC.B FLAKE	TERT. FLAKE	MICRO FLAKES	BLADES	RESTRICTED TOTAL - %	CHIPS	CHUNKS	CORE FRAG.	CORE TRIM FLAKES	BURIN SPALLS	BTF	OTHER	1	LEVEL TOTAL - %
,				7	12			19 - 10,50	7								26 - 6 .57
2				í	3	3		7 - 3,87	4								11 - 2.78
3			1	1	14	5		21 - 11.60	17								38 - 9.60
4		1		10	14	2	2	29 - 16.02	24					1		\prod	54 - 13.64
5	1	3	9	15	49	9	1	87 - 48.07	84	1							173 - 43.68
6	Į.		1	5	7	5		18 - 9.94	76		1						94 - 23.73
								Į	ļ								
Total	1	4	11	39	99	24	3	1 181 -100.00	212	1	1			1		П	396 -100.00

Table G-20
Lithic Debitage and Debris, Site 41WM230, XU-1

10cm LEVEL	CORE	PRIM. FLAKE	SEC. A FLAKE	SEC.B FLAKE	TERT. FLAKE	MICRO FLAKES	BLADES	RESTRICTED TOTAL - %	CHIPS	CHUNKS	CORE FRAG.	CORE TRIM FLAKES	BURIN SPALLS	BTF	OTHER	LEVEL TOTAL - %
2	1			6	12	4	1	2398	24							
3	}		5	14	19	10	,	ļ	ł							47 - 1.10
4	{		-					49 - 2.09	40				1	2		92 - 2.15
-		•	3	20	67	13	2	109 - 4.66	82	1			1	3	1	197 - 4.61
5	2	3	3	21	67	18	1	115 - 4.92	110	2	2			6		235 - 5.50
6	[1	2	12	39	128	25	3	210 - 8.97	153					3		366 - 8.56
7	1		6	24	73	9	1	114 - 4,87	128	1		,		•		11
8	ł	2	5	15	72	10		104 - 4.44	93	•		'		-		248 - 5,80
9	ĺ	4	22	35	149	25	5		1	'				5		203 - 4.75
10	1	•	13				•	240 - 10.26	172	3				6		421 - 9.85
				60	144	63	4	284 - 12.14	217	1			1	5		508 - 11,88
11	1	4	14	76	167	54	3	319 - 13.63	211	3		2		1		536 - 12.54
12	[1	12	63	168	59	5	308 - 13.16	267	1	2			2		580 - 13.57
13	ł		5	52	107	42	1	207 - 8.85	163		-			•		1
14		1	2	24	68	20	,	116 - 4.96		,				3	' '	374 - 8.75
15	1 2		6	27	77	30			99	,					1	216 - 5.05
	-		J	٤/	"	30	- 1	142 - 6.07	110							252 - 5.89
Total	1,	21	108	476	1,318	382	28	2,340 - 100.00	1,869	14	4	3	3	40	2	4,275 -100,00

Table G-21 Lithic Debitage and Debris, Site 41WM230 - XU-3

10cm LEVEL	CORE	PRIM. FLAKE	SEC. A FLAKE	SEC.B FLAKE	TERT. FLAKE	MICRO FLAKES	BLADES	RESTRICTED	CHIPS	CHUNKS	CORE FRAG.	CORE TRIM FLAKES	BURIN SPALLS	BTF	OTHER	LEVEL TOTAL - \$
1	1							101	1							201
2	1	6	12	40	125		6	190 - 1.00	228	12	2	3			1	436 - 1.24
3	1	3	9	24	55		2	9450	123	2	1	-		6		22664
4	1	3	13	42	100		7	16586	230	_			1	9		405 - 1.15
5	2	6	30	104	274	11	8	435 - 2.30	531	3	3			16		988 - 2.81
6	3	15	69	237	740	33	25	1,122 - 5.92	1,041	14	1			37		2,215 - 6.30
7	9	14	79	261	970	93	28	1,454 - 7.67	1,273	13	6	2	2	46	2	2,798 - 7.96
8	5	19	100	414	1,338	294	97	2,267 - 11.97	1,807	24	6	5	3	104	3	4,219 - 12.00
9	11	30	131	501	1,830	442	101	3,046 - 16.08	2,141	28	2	2	6	137	3	5,365 - 15.26
10	7	29	101	502	1,750	418	68	2,875 - 15.18	2,107	16	3		5	110	1	5,117 - 14.56
11	4	6	33	314	1,074	233	8	1,672 - 8.83	1,917	5	5	1		9		3,609 - 10.27
12]	6	25	243	703	126	3	1,106 - 5.84	1,147	2	1		1			2,257 - 6.42
13	1	4	16	74	209	63	12	379 - 2.00	301	4	2		1	11		698 - 1.99
14	1	2	7	37	101	21	4	17390	122	Ť				2		29885
15	•	1	6	24	56	12	1	10053	62					2		16447
16	1	1	10	1.	46	11	1	8243	55		2			1		14040
17		1	3	18	33	8		6333	60	3				2		12836
18	1	3	4	17	29	11	1	6635	34							10028
19	1	3	17	25	- 54	22	2	12365	66	2				2	i	19355
20		8	21	91	167	50	7	344 - 1.82	167	4		7		5	1	521 - 1.48
21	1	3	18	44	98	32	1	196 - 1.03	99					1		29684
22	1	7	4	43	95	24	7	18195	100	1		2		1	Í	28581 @
23	į	6	19	34	87	21	2	16988	94	3				2		26876 23

Table G-21 (continued) Lithic Debitage and Debris, Site 41WM230 - XU-3

10cm LEVEL	CORE	PRIM. FLAKE	SEC. A FLAKE	SEC.B FLAKE	TERT. FLAKE		BLADES	RESTR TOTAL -		CHIPS	CHUNKS	CORE FRAG.	CORE TRIM FLAKES	BURIN SPALLS	BTF	OTHER	LEVEL TOTAL - S		
24	3	5	11	46	103	29	2	199 -	1.05	90	1				2		292 -	.83	
25	2	3	19	57	112	22	2	217 -	1.14	135	5	3	1		2		363 -	1.03	
26	1	8	22	68	179	36	4 [318 -	1.68	239	7		1			2	567 -	1.61	
27		9	32	97	206	46	6	396 -	2.09	255	3	1	1		6		662 -	1.88	
28	1	4	13	70	155	29	5	277 ~	1.46	161	6		1			1	445 - 1	1.27	
29	l	2	11	22	55	14	6	110 -	.58	61	l		1	1	1	\ \ \	175 -	.50	
30		2	7	20	33	6		68 -	. 36	45	1						114 -	. 32	
31]		5	12	22	4	2	45 -	. 24	30						j	75 -	.21	
32	l		2	6	13	2	1	24 -	. 13	9						-	33 -	.09	
33				1	5	1		7 -	.04	111						1	18 -	.05	
34			1	4	13	3		21 -	.11	12						ŀ	33 -	.09	
35	1	1	1	16	33	7	1	60 -	. 32	54					1		115 -	. 33	
36		1	4	20	34	12	3	74 -	. 39	58	1				1	J	134 -	. 38	
37		1	8	16	46	2	2	75 -	.40	52		1				ļ	128 -	. 36	
38	1	2	27	135	359	76	12	612 -	3.23	407	2			1	6		1,028 - 2	2.92	
39			1	16	36	14	2	69 -	. 36	52		1		1			123 -	. 35	
40								_		3						j	3 -	.01	
41	l				3			3 -	.02	3						ł	6 -	.02	
42	1				1		[1 -	.01	1						- [1 -	.01	
43	1			1			ı	. 1 -	.01	1							2 -	.01	
44	l			1	3			4 -	.02	1						1	4 -	.01	ဝ
45	I						l			Į.						[1		_	-24

Table G-21 (continued)

Lithic Debitage and Debris, Site 41WM230 - XU-3

10cm LEVEL	CORE	PRIM. FLAKE	SEC. A FLAKE	SEC.B FLAKE	TERT. FLAKE	MICRO FLAKES	BLADES	REST TOTAL	RICTED - %	CHIPS	CHUNKS	CORE FRAG.	CORE TRIM FLAKES	BURIN SPALLS	BTF	OTHER		LEVEL TOTAL - \$	
46				1	1			2	01									2 -	.01
47								_		1							П	1 -	.01
48					2			2	01	1								3 -	.01
49					1			1	01	1							Ш	2 -	.01
Unkno	wn		3	7	12			56	30	40							11	96 -	. 27
Total	58	214	894	3,717	11,383	2,240	439	18,945	-100.00	15,427	164	40	21	22	522	12		35,153 -100	0.00

1

Table G-22
Lithic Debitage and Debris, Site 41WM230 - XU-5

10cm LEVEL	CORE	PRIM. FLAKE	SEC. A FLAKE	SEC.B FLAKE	TERT. FLAKE	MICRO FLAKES	BLADES	RESTRICTED TOTAL - %	CHIPS	CHUNKS	CORE FRAG.	CORE TRIM FLAKES	BURIN SPALLS	BTF	OTHER	LEVEL TOTAL - %
2						3	1	451	7		1					1284
3	ļ	2	3	4	25	4	1	39 - 5.01	24	1						64 - 4.50
4	1	2	7	35	55	8	3	111 - 14.25	59	3	1					174 - 12.23
5	1	2	6	19	49	15	4	96 - 12.32	64	4				2		166 - 11.67
6	2	2	9	18	45	9		85 - 10.91	58	3		1		3	1	151 - 10.61
7	1		8	12	38	8	2	68 - 8.73	45	2				3		118 - 8.29
8		2	4	9	15	12	2	44 - 5.65	40	1		1	1	3		90 - 6.32
9	}	2	3	7	23	4	2	41 - 5.26	46					1	İ	88 - 6.18
10		2	2	14	28	9		55 - 7.06	41		1			5		102 - 7.17
11	2	1	4	5	16	3	1	32 - 4.11	29	1				1		63 - 4.43
12	ł	3	3	7	20	2		33 - 4.24	30					5	Ì	68 - 4.78
13		1	2	23	43	4		73 - 9.37	47			1		2		123 - 8.64
14	ŀ	1	1	22	36	3	1	64 - 8.22	72							136 - 9.56
15	۱ ا	1	1	11	19		1	34 - 4.36	32	1				1		68 - 4.78
Total	١,	19	53	186	412	84	18	779 -100.00	594	16	3	3	1	26	1	1,423 -100.00

Table G-23 Lithic Debitage and Debris, Site 41WM230 - XU-7

10cm LEVEL	CORE	PRIM. FLAKE	SEC. A FLAKE	SEC.B FLAKE	TERT. FLAKE	MICRO FLAKES	BLADES	RESTRICTED TOTAL - %	CHIPS	CHUNKS	CORE FRAG.	CORE TRIM FLAKES	BURIN SPALLS	BTF	OTHER	\parallel	LEVEL TOTAL - \$
									}							11	
2	1								3							- 11	3 - 8.11
3					1			1 - 7.14								11	1 - 2.70
4									2							Ш	2 - 5.41
5		1	2	1	5		1	10 - 71.43	5							11	15 - 40.53
6	1							- -	2							-11	2 - 5.41
7									3							\parallel	3 - 8.11
8	1				2			2 - 14.29	7							Ш	9 - 24.32
9	1				1			1 - 7.14	1		1					-11	2 - 5.41
	1							į								\mathbb{I}	
Total	1	1	2	1	9		1	14 - 100.00	22		1					-11	37 - 100- 00

Table G-24 Lithic Debitage and Debris, Site 41WM230 - XU-8

10cm LEVEL	CORE	PRIM. FLAKE	SEC. A FLAKE	SEC.B FLAKE	TERT. FLAKE	MICRO FLAKES	BLADES	RESTRICTED TOTAL - %	CHIPS	CHUNKS	CORE FRAG.	CORE TRIM FLAKES	BURIN SPALLS	BTF	OTHER	11	LEVEL	-	
																11			
2				3	5	3		9 - 21.43	11					1		Π	21 - 25.00		
3	ł			3	18			21 - 50.00	15					1		11 :	37 - 44.05		
4	i			1	9	1	1	12 - 28.57	13					1		H :	26 - 30.95	6	
	}															11		2	
Total				5	32	4	,	42 -100.00	39					3		11 4	84 -100.00	7	

Table G-25
Lithic Debitage and Debris, Site 41WH230 - XU-9

10cm LEVEL	CORE	PRIM. FLAKE	SEC. A FLAKE	SEC.B FLAKE	TERT. FLAKE	MICRO FLAKES	BLADES	RESTRICTED TOTAL - %	CHIPS	CHUNKS	CORE FRAG.	CORE TRIM FLAKES	BURIN SPALLS	BTF	OTHER	LEVEL TOTAL - S
2			1		4			523	3					1		925
3			•	2	4		,	732	11					·		1850
4	İ	1		3	10	2		1674	15						1	3185
5		1	2	19	19	10	1	52 - 2.40	33					1	ŀ	86 - 2.37
6		1	10	25	70	8	4	118 - 5.45	109	1				2	ì	230 - 6.34
7	1		4	33	80	16	וו	134 - 6.19	86	1				2	i	223 - 6.15
8	2	2	9	66	157	35	4	275 - 12.72	166			1		2	j	444 - 12.24
9	ĺ	5	50	154	465	108	15	797 - 36.83	473	2		1	1	11	}	1,285 - 35.42
10		5	23	84	328	77	4	521 - 24.08	349	2				9	- 1	881 - 24.28
11			14	60	122	42	1	239 - 11.04	175	2		1		4		421 - 11.60
Total	2	15	113	446	1,259	298	31	2,164 -100.00	1,420	8		3	1	32		3,628 -100.00

Table G-26
Lithic Debitage and Debris, Site 41WM258 - Area A

10cm LEVEL	CORE	PRIM. FLAKE	SEC. A FLAKE	SEC.B FLAKE	TERT. FLAKE	MICRO FLAKES	BLADES	RESTRICTED TOTAL - %	CHIPS	CHUNKS	CORE FRAG.	CORE TRIM FLAKES	BURIN SPALLS	BTF	OTHER	LEVEL TOTAL - %
						_									,	33 - 1.99
2				3	20	ı		24 - 2.37	8						1	1 1
3	I	3		36	45	19	2	106 - 10.48	63	3	1			1		172 - 10.38
4	1	1	11	87	112	45		257 - 25.42	149	1	1			2		410 - 24.74
5		2	3	31	44	18	12	110 - 10.88	162	4						276 - 16.66
6		2	8	55	118	28		211 - 20.87	113					2		326 - 19.67
7			5	40	75	19		139 - 13.75	31						1	172 - 10.38
8		1	4	25	87	23		140 - 13.85	90	1				1	!	232 - 14.00
9	١			9	10		4	23 - 2.28	10					2	:	35 - 2.12
10	}				1			110	ļ							106
								ļ	1				•			11
Tota?	5	9	31	286	512	153	18	1,011 -100.00	626	7	2			8	2	1,657 -100.00

Table G-27
Lithic Debitage and Debris, Site 41WM258 - Area B

10cm LEVEL	CORE	PRIM. FLAKE	SEC. A FLAKE	SEC.B FLAKE	TERT, FLAKE	MICRO FLAKES	BLADES	RESTRICTED TOTAL - %	CHIPS	CHUNKS	CORE FRAG.	CORE TRIM FLAKES	BURIN SPALLS	BTF	OTHER	LEVEL TOTAL - %
_	{]]
5	{			1	3			4 - 1.78	1					1		6 - 1.80
3	}	1			6	1		8 - 3.56	7							15 - 4.51
4	}				7	1		8 - 3.56	4							12 - 3.60
5	1		1	6	10			17 - 7.56	11							28 - 8.41
6	1		2	20	44	8		74 - 32.89	34							108 - 32.44
7	(2	9	24			35 - 15.56	11	1						11
8	{		2		13	3				•				•		48 - 14.41
	ł		•	•	13	3	'	23 - 10.20	13							36 - 10.81
9	1.				1			144	1							130
10	į 1		2	1	14	7	1	26 - 11.56	14							40 - 12.01
11	Į.		1	1	5		2	9 - 4.00	2	1						12 - 3.60
12	l								}							
13	1				14	2		16 - 7.11	5						,	22 6 61
14	}			1	3			4 - 1.78	1 ;						•	22 - 6.61
••	{			•	•			7 - 1.78	' '							5 - 1.50
Total	1	1	10 .	43	144	22	4	225 -100.00	103	2				2	1	333 -100.00

Table G-28
Lithic Debitage and Debris, Site 41WM258 - Area C

10cm LEVEL	CORE	PRIM. FLAKE	SEC. A Flake	SEC.B FLAKE	TERT. FLAKE	MICRO FLAKES	BLADES	RESTRICTED TOTAL - %	CHIPS	CHUNKS	CORE FRAG.	CORE TRIM FLAKES	BURIN SPALLS	BTF	OTHER	TOTAL - %
2									1							115
3	}		1	7	3			5 - 1.12	l							574
4	1		4	8	13	3		26 - 5.83	6	2						34 - 5.00
5	١,	2	7	34	5)	23		118 - 26.46	82		1			1		202 - 29.71
6	` [2	Á	16	37	12	1	72 - 16.14	21	1	1			1		96 - 14.12
7	}	,	3	11	38	2	1	56 - 12.56	10	1						67 - 9.85
8		•	,	7	16	3		28 - 6.28	28	1						57 - 8.38
9	İ	,	•	,	2	•		5 - 1.12	} 4							9 - 1.32
10	1	•	'n	•	5		1	13 - 2.91	1							14 - 2.06
11			,	7	10		•	19 - 4.26	2				1			22 - 3.23
	1	•	•	,		16		20 - 4.48	5							25 - 3.68
12	1			_	•	10	2	1	1							12 - 1.76
13	1		1	2			2									122 - 17.94
14	1			7	40	16		63 - 14.13	59							11
15	1				6	3		9 - 2.02	5							14 - 2.06
Total	1	7	25	100	232	76	5	446 -100.00	224	5	2		1	2		680 -100.00

Table G-29
Lithic Debitage and Debris, Site 41WM267 - Area A

10cm LEVEL	CORE	PRIM. Flake	SEC. A FLAKE	SEC.B FLAKE	TERT. FLAKE	MICRO FLAKES	BLADES	RESTRICTED TOTAL - \$	CHIPS	CHUNKS	CORE FRAG.	CORE TRIM FLAKES	BURIN SPALLS	BTF	OTHER	LEVEL TOTAL - \$
1	}			,			ſ	101		2						301
2	}		7	18	24	16	Í	6536	101	1	1	,			1	17049
3	}		1	4	25	13	1 1	44 - ,25	39	•	•	,		,	•	7 7
4	}		9	20	76	18	3	12670	134	1	1			'		11
5	,	}	18	70	193	63	8	354 - 1.98	368	, 5	,			•		26276
6	1	2	18	55	162	111	4	353 - 1.97	478	,	i			•		730 - 2.11
7	1	1	23	60	226	122	3	435 - 2.43	566	,	,					834 - 2.42
8	1	2	19	85	263	76	5	450 - 2.51	440	,	2			3		1,007 - 2,92
9	3		12	84	263	83	8	453 - 2.53	367		2			3		896 - 2,59
10	2		12	41	170	63	3	291 - 1.62	250	•	2	•		0		833 - 2.41
11]	7	18	49	177	49	5	299 - 1.67						•		546 - 1.58
12	1		22	130	435	116			240	5				1		545 - 1.58
13	2	7	61		_		6	714 - 3.99	56)	3				3		1,281 - 3.71
14	;	17		330	1,049	291	13	1,752 - 9.78	1,576	6	2	7		18		3,355 - 9.71
	1:		72	301	1,111	399	22	1,923 - 10.73	1,681	1	2	1	1	21		3,630 - 10.51
15		9	87	336	1,145	468	10	2,056 - 11.47	2,006	3	7			29		4,095 - 11.86
16	2	15	87	491	1,538	622	16	2,771 - 15.46	2,263	9	9	1		19		5,072 - 14.68
17	(1	1	35	235	908	429	9	1,618 - 9.03	1,449	8	2			14	1	3,092 - 8.95
18	ĺ	4	36	230	907	416	8	1,601 - 8,94	1,399	3	2	2		15		3,022 - 8.75
19	1	3	27	150	490	255	5	930 - 5.19	680	1	1	3		1		1,614 - 4.67
20	4		28	124	273	192	3	624 - 3,48	699		2			ţ		1,326 - 3.84
21))	5	36	94	231	90	3	460 - 2.57	436		4	ı				901 - 2.61
22	1	1	1	17	65	12	2	9955	116					ı		21663 क
23	1		1	10	32	3	1	4726	29	1	2	1		ŕ	l	8023 %

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Table G-29 (continued)
Lithic Debitage and Debris, Site 41WM267 - Area A

10cm	CORE	PRIM. FLAKE	SEC. A FLAKE	SEC.B FLAKE	TERT. FLAKE	MICRO FLAKES	BLADES	RESTRICTED TOTAL - %	CHIPS	CHUNKS	CORE FRAG.	CORE TRIM FLAKES	BURIN SPALLS	BTF	OTHER		LEVEL TOTAL - 1	<u>s</u>
24		1	1	7	28	5		4223	13		1					- }}	56 -	. 16
25		1	5	18	60	1	1 1	8648	75		1			1			163 -	.47
26			12	23	53	14	1	10357	159		1					Ш	263 -	.76
27	1		1	14	38	9	ĺ	6235	35			1				Ш	99 -	. 29
28	(1		21	48	17		8749	64	1						- 11	152 -	.44
29	1		2	14	31	17	j	64 ~ .36	134							- []	198 -	.57
30	1				6	2	į	8 ~ .04	8							- {}	16 -	.05
Total	21	75	651	3,032	10,027	3,972	140	17,918 -100.00	16,367	56	40	11	1	146	2		34,541 -10	00.00

Table G-30 Lithic Debitage and Debris, Site 41WM267 - Area B

10cm LEVEL	CORE	PRIM. FLAKE	SEC. A Flake	SEC.B FLAKE	TERT. Flake	MICRO FLAKES	BLADES	RESTRICTED TOTAL - %	CHIPS	CHUNKS	CORE FRAG.	CORE TRIM FLAKES	BURIN SPALLS	BTF	OTHER	LEVEL TOTAL - \$
2		3	4	35	82	55	2	18190	272	1	1			3		458 - 1.24
3	ĺ		6	11	28	27	1 [7336	131					1		20556
4	1		4	6	27	4	1	4321	102							14539
5	1		17	65	244	123	2	452 - 2.24	501	3	3			3		962 - 2.61
6	1	6	44	124	558	240	11	984 - 4.87	966	5	2	1		7		1.965 - 5.32
7	2	3	20	79	285	109	5	503 - 2.49	623		1			,		1,130 - 3.06
8	1	2	20	113	348	153	2	639 - 3.16	826		6	1		2		1,474 - 3,99
9	1	7	21	116	473	217	8	843 - 4,17	890	3	1	2	1	3		1,743 - 4.72
10	1	3	28	153	503	172	,	867 - 4.29	788	2	,	-	,	9	,	
11	1	6	42	174	561	137	42	963 - 4.77	727	Ā	,		•	,	•	1,669 - 4.52
12	2	9	50	232	726	221	18	1,258 - 6.23	836	12	1	1		8	, ,	1,702 - 4.61
13	1	9	40	220	674	202	17	1,163 - 5.76	950	3	į	•			' '	2,117 - 5.73
14	2	3	36	215	627	177	5	1,065 - 5.27	803	4	•					2,125 - 5.76
15	1	20	157		405	211	7	801 - 3,97	677	5	2			•		1,880 - 5.09
16	1	1	42	214	614	282	3	1,157 - 5,73	835		,	•		•		1,489 4.03
17	ł	3	59	274	889	425	6	1.656 - 8.20		2	,			3		2,000 - 5.42
18		3	57	235	726	350	7	1,378 - 6.82	1,296	_		•		5		2,960 - 8.02
19	ł	6	45	238	725	236	7	1,257 - 6.22	1,038	3				3	1	2,423 - 6.56
20	3	1	32	189	677	286	11		927	2	- !			4	ł	2,191 - 5.93
21	-	3	27	111	389	199	',	1,199 - 5.94	931	6	1			8	- 1	2,145 - 5.81
22	1	•	36	163	434	101		736 - 3.65	459	3	2			10	1	1,210 - 3.28
23	١.		29	173	666		8	743 - 3.68	535		1			9	į	1,288 - 3,49
24	,	1	18	62		302	4	1,174 - 5.81	680		1			11		1,866 - 5.05
•	• •	•	••	02	257	32	3	374 - 1.85	182		1			1	ı	ئي 1.51 - 558

Table G-30 (continued)
Lithic Debitage and Debris. Site 41WM267 - Area B

10cm LEVEL	CORE	PRIM. FLAKE	SEC. A FLAKE	SEC.B FLAKE	TERT. FLAKE	MICRO FLAKES	BLADES	RESTRICTED TOTAL - %	CHIPS	CHUNKS	CORE FRAG.	CORE" TRIM FLAKES	BURIN SPALLS	8TF	OTHER		LEVEL AL - S	
25	1	1	7	39	159	53	2	262 - 1.30	159	2	1			4		- }}	428 -	1.16
26	ļ		6	42	120	28		19697	200							[]	396 -	1.07
27		1	3	18	77	28		12763	74					2		-11 :	203 -	. 55
28	1			5	28	17	1	5125	45	1						11	97 -	. 26
29	į			2	5	4		1106	6							11	17 -	.05
30	[2	5	9	4	1	2110	12					1		! 	34 -	. 09
31	1		1	5	7	2		1507	9							11	24 -	.07
32	1	1			4	2		703	10							11	17 -	.05
Total	22	92	853	3,318	11,327	4,399	188	20,199 -100.00	16,490	65	35	6	2	122	2	36.9)21 -10	00.00

Table G-31
Lithic Debitage and Debris, Site 41WM267 - Area C

10cm LEVEL	CORE	PRIM. FLAKE	SEC. A FLAKE	SEC.B FLAKE	TERT. FLAKE	MICRO FLAKES	BLADES	RESTRICTED TOTAL - %	CHIPS	CHUNKS	CORE FRAG.	CORE TRIM FLAKES	BURIN SPALLS	BTF	OTHER	LEVEL TOTAL - %
2 3 4 5 6 7 8	1	2	6 2 2 5 3 7	12 13 16 11 46 22 5	50 29 34 68 126 150 37	27 12 41 16	1	95 - 10.76 58 - 6.57 93 - 10.53 100 - 11.33 177 - 20.05 223 - 25.25 50 - 5.66	110 126 150 83 125 73 22	1 1 1 28	1 2			2 3		205 - 12.36 185 - 11.16 244 - 14.72 183 - 11.04 305 - 18.40 328 - 19.78 74 - 4.46
10 11 12 Total	2	i 6	2 2 1	10 8 2	15 15 12 7 543	3 4 2	1	29 - 3.28 31 - 3.51 18 - 2.04 9 - 1.02	13 14 12 4 732	2	3			1	1	46 - 2.77 45 - 2.71 30 - 1.81 1379

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Table G-32
Lithic Debitage and Debris, Site 41WM267 - Area D

10cm			SEC. A		TERT.	MICRO		RES					CORE	CORE	BURIN			ι	LEVE	L	
LEVEL	CORE	FLAKE	FLAKE	FLAKE	FLAKE	FLAKES	BLADES	TOTAL	9	<u>. </u>	CHIPS	CHUNKS	FRAG.	FLAKES	SPALLS	87F	OTHER	101/	IL -	1	-
Surface			1	1	11			13		.07		1						14		0.4	
1			7	16	61	12		96		,53	34	1				2		133		.04	
2	1	4	4	16	65	-8		98	-	.54	56	1				•		156		.42	
3		4	3	24	41	10	1	83	_	.46	55	6						144		.49	
4		3	2	13	40	17		75	_	.42	50	1				,		127		.45	
· 5			1	16	30	6		53	_	.29	16	-				•		69		.40	
6	1	1		7	23	6		38	_	.21	4	,	,					44	-	.22	
7		2	2	15	25	8		52		.29	34	•	•					86		. 14	
8			1	16	39	15		71		.39	26	3							-	.27	
9		1	3	16	42	19		81	_	.45	30	3	,					100	-	. 32	
10		2	7	27	65	12		113	_	,63	36	10	•					115		. 36	
11		1	1	18	46	13		79	_	.44	24	10						159	•	.50	
12			4	14	36	9		63	-	.35	7							103	•	.33	
13				1	21	5		27	•		16							70	••	.22	
14				,	15	5		23	•	.14						ı		44	•	, 14	
15			,	,	18	6	,		-	.13	9	3						35	•	.11	
16			•	7	21	7	•	28	•	. 16	9	2			1	2		42	-	.13	
17			4	10	32	-		35	-	. 19	21							56	•	.18	
18				17	3≥ 48	15		61	•	.34	39					2		105	-	.32	
19			,	_		20		94	•	.52	70				1	2		167	•	.53	
20			0	25	69	27	2	133	-	.74	173	4		2		4		316	-	1.00	
20			9	47	77	17	11	164	•	.91	209							391	•	1.23	

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Table G-32 (continued) Lithic Debitage and Debris, Site 41WM267 - Area D

10cm LEVEL	CORE	PRIM. FLAKE	SEC. A FLAKE	SEC.B FLAKE	TERT. FLAKE	MICRO FLAKES	BLADES	REST TOTAL			CHIPS	CHUNKS	CORE FRAG.	CORE TRIM FLAKES	BURIN SPALLS	BTF	OTHER	LE TOTAL	VEL	
21		3	14	58	160	58	1	294	_	1.63	320	22		1		9		646	-	2.04
22		1	7	54	148	34	2	246	-	1.36	186	15				15		462	-	1.46
23		2	9	27	85	37	2	162	-	.90	141	9			1	17		330	-	1.04
24		1	14	57	127	57	3	259	-	1.44	168	5				7		439	-	1.39
25			3	31	75	24		133	-	.74	223	1				1		358	-	1.13
26	1		6	36	99	32		174	-	.97	173	18				8		373	-	1.18
27		2	4	27	53	13	12	111	-	.61	97	5				5		518	-	.69
28	1	1	9	26	98	47	2	184	-	1.02	191					1		376	-	1.19
29		4	5	36	85	61	6	197	-	1.09	174	5				8		384	-	1.21
30	1		5	34	89	33	3	165	-	. 92	116	5				9		295	-	.93
31			1	26	55	17		99	-	.55	95	6				2		202	-	.64
32			2	27	41	15		85	-	.47	75	7				5		172	-	.54
33			4	26	35	22	1	88	-	.49	87	1				1		177	-	.56
34			1	18	28	9	1	57	•	. 32	40	7				1		105	-	.33
35			1	11	41	9		62	-	. 34	46	4						112	-	.35
36			2	10	16	2		30	-	.17	17	8				3		58	-	.18
37			2	3	16	3	1	25	-	. 14	14	7				2		49	-	.16
38			1	2	13	2		18	•	. 10	17	7		1		1		43	-	. 14
39				1	4	3		8	-	.04	8	1						17	-	.05
40			3	3	15	3		24	-	. 13	13	5						42	-	. 13

Table G-32 (continued)
Lithic Debitage and Debris, Site 41WM267 - Area D

								RESTRICTED			conr	CORE TRIM	BURIN			FEAEF		
10cm		PRIM.	SEC. A	SEC.B	TERT.	MICRO FLAKES	BLADES	TOTAL - %	CHIPS	CHUNKS	CORE Frag.	FLAKES	SPALLS	BTF	OTHER	TOTAL -	1	
LEVEL	CORE	FLAKE	FLAKE	FLAKE	FLAKE	FLAKES	DEADES	70							_			
									9	,						19 -	.06	
41				2	6	1		905	,					1		17 -	.05	
42			1	1	4	1		704		4						13 -	.04	
43				2	1	1		402	3	9						18 -	.06	
44				1	1	4	1	704	3	,						20 -	.06	
45				4	5	1	6	1609	2	,			1			20 -	.06	
46				1	12	2		1508	11	-			•	1		4D -	.13	
47				7	10	5		2212	10							33 -	. 10	
48				2	18			2212						9		98 -	. 31	
49		3		10	49			7139	18							37 -	. 12	
50				5	11	2		1810	19					1		70 -	.22	
51			1	6	27	7		4123						3		54 -	. 17	
52			1	5	21			2916				1		5		885 -	2.80	
53-54		3	31	127	467	201	7	836 - 4.64	28		4	•		8		3,708 -	11.72	
55-56	1	7	79	321	1,076		12	1,957 - 10.85			,	;		7		4,146 -	13.10	
57-58	3 4	7	79	363	1,456		55	2,402 - 13.32			•	;		8	ı	3,736 -	11.80	
59-60	3 4	1	5.	3 269	1,223			1,979 - 10.97			,	•		3	1	2,914 -	9.21	
61-62	? 6	3	38	B 183	922			1,580 - 8.76			3			6	i	3,235 -	10.22	
63-64	1 3	2	4	9 325	1,017			2,001 - 11.09			,					1,227 -	3.88	
65-60	5 3	1	1	6 136	400			709 - 3.93			1	,				601 -		
67-68	B 2	1	1	0 56	199	9 74	. 2	344 - 1.91	25	3 3		•						

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Table G-32 (continued)
Lithic Debitage and Debris, Site 41WM267 - Area D

10cm LEVEL	CORE	PRIM, FLAKE	SEC. A FLAKE	SEC.B FLAKE	TERT. FLAKE	MICRO FLAKES	BLADES	RESTRIC		CHIPS	CHUNKS	CORE FRAG.	CORE TRIM FLAKES	BURIN SPALLS	BTF	OTHER	LE TOTAL	VEL	<u> </u>
69-70	6	1	11	62	196	58	1	335 -	1.86	216	1	2			1		555		1.75
71-72	4	2	3	29	110	23	2	173 -	.96	103		· 1					277	-	.88
73-74	1		2	15	45	5	1	69 -	. 38	59							128	-	.40
75-76			2	11	31	16		60 -	. 33	44							104		. 33
77-78		2		8	71	7	1	89 -	.49	59	7				2		157	-	.50
79-80	2	1	3	9	32	13		63 -	.33	9	9				2		80	-	.25
81-82			1	13	31	6		51 -	.28	19	11				3		84	-	.27
83-84				16	20	7	4	47 -	.26	24	6				7		84	-	.27
85-86				22	76	14	19	131 -	.73	43	26		3		15	1	219	-	.69
87-88	1			8	28	6		43 -	.24								43	-	. 14
89-90				2	11	3	1	17 -	.09						2		19	-	.06
91-92		1		2	10	4		17 -	.09	5		1			4		27		.09
93-94		3		12	39	5	4	63 -	. 35	24		12			6		105	-	.33
95-96				24	71	15		110 -	.61	33	9				16		168	-	.53
97-98		2	3	17	45	10		77 -	.43	38	3				5		123	-	. 39
99-100			2	5	26	11	10	54 -	. 30	22	3						79	-	.25
101-102		1	6	25	54	36		122 -	.68	94	5		2		7		230	-	.73
103-104	1		1	8	44	14	1	69 -	. 38	27	12				3		111	-	. 35
105-106			1	5	13	6		25 -	.14	8	2				1		36	-	.11
107-108	1	2	4	12	32	21		72 -	.40	55	1						128	-	.40

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Table G-32 (continued)

1.246.2 - Dal			0-1		41184067			_
Lithic Del	ortage (ana	veoris.	Site	41MMZ0/	-	Area	υ

10cm		PRIM.	SEC. A	SEC.B	TERT.	MICRO		RES	TRICTED			CORE	CORE	BURIN			ι	EVEL	
LEVEL	CORE	FLAKE	FLAKE	FLAKE	FLAKE	FLAKES	BLADES	JOTA	L - %	CHIPS	CHUNKS	FRAG.	FLAKES	SPALLS	BTF	OTHER	1014	L -	•
109-110	0	1	1	12	34	14		62	34	39	2				1		104	-	.33
111-112	2 1		3	1	9	1		15	08	6					3		24	-	.08
113-114	4	3	17	45	36	9		110	61	75	21		1		3	1	211		.67
115-116	5	1	3	8	13	1		26	14	6	2				3		37	-	. 12
117-118	3			5	4	1		10	06	8	4				1		23	-	.07
119-123	9	1	1	3	9	1		15	08	2	1						18	-	.06
121-122	2	2	1	3	13	6		25	14	2	4				2		33	•	. 10
123-124	1				3	1		4	02	7					2		13	-	.04
125-126	5	1	2	12	30	6		51	28	28	5				6		90	-	.28
127-128	3			2	8	3		13	07	5	3		1		3		25	-	.08
129-130)		1	4	7	2		14	08	4	1						19	-	.06
131-132	?	1	4	7	9	8		29	16	13	8		2		3		55	-	. 17
133-134	ı		1	2	7			10	06	4	1		1		5		21	-	.07
135-136	5																		
137-138	3																		
TOTAL	45	89	587	3,059	10,200	3,810	248 1	8,038	-100.00	12,855	424	35	20	4 2	74	2	31,652	- 1	00.00

Appendix H: Descriptive Statistics of the Dimensions of Complete Lithic Tools

The following tables provide descriptive statistics for the size dimensions (length, width, and thickness) of the complete lithic tools collected from the excavated sites of the North Fork and Granger Reservoir districts. Only those tool classes represented by four or more complete specimens per component are presented individually by site. The dimensions of all other complete tool specimens have been incorporated in the reservoir summary tables (Tables H-4 and H-8).

Legend:

N = sample size

L = length

W = width

T = thickness

s.d. = standard deviation

min.val = minimum value

max.val = maximum value

mean s.e. = mean standard error

c.v. = coefficient of variance

Table H-1. Descriptive Statistics of Complete Tools, Site 41 WM53

	1 Class ponent	Truncations Austin/Twin Sisters	Burins Twin Sisters	Burins Austin/Twin Sisters
	N	4	4	4
L:	mean	33	38	63
	s.d.	21.63	10.31	21.56
	min.val.	10	23	44
	max.val.	58	47	94
	mean s.e.	10.81	5.15	10.78
	variance	467.67	106.25	464.92
	c.v.	66.54	27.31	34.09
W:	mean	30	31	41
	s.d.	13.54	8.49	13.43
	min.val.	16	21	27
	max.val.	47	39	57
	mean s.e.	6.77	4.24	6.71
	variance	183.33	72.00	180.25
	c.v.	45.13	27.37	32.95
T:	mean	4	8	12
	s.d.	1.63	3 .9 5	4.24
	min.val.	2 6	5	7
	max.val.	6	13	16
	mean s.e.	.82	1.97	2.12
	variance	2.67	15.58	18.00
	C.V.	40.83	47.85	35.36

Table H-2. Descriptive Statistics of Complete Tools, Site 41 \pm 056

	ool class mponent	Scrapers Round Rock	Scrapers Clear Fork	Notches Twin Sisters	Notches Clear Fork	Notches San Geronimo	Backed P San Geronimo
	N	5	8	10	7	7	4
L:	mean s.d. min.val. max.val. mean s.e. variance c.v.	70 14.08 54 85 6.30 198.30 20.23	60 26.40 28 110 9.33 697.07 43.82	37 11.69 20 56 3.70 136.71 31.95	46 26.50 15 98 10.02 702.14 57.78	30 13.46 12 47 5.09 181.24 45.31	41 20.49 20 64 10.25 420.00 49.99
W:	mean s.d. min.val. max.val. mean s.e. variance c.v.	64 14.24 46 83 6.37 202.70 22.18	47 14.78 34 73 5.23 218.57 31.46	33 11.42 20 53 3.61 25.83 59.80	38 17.37 20 66 6.56 301.57 46.05	35 21.84 12 65 8.26 477.74 62.67	31 20.98 15 59 10.49 440.25 67.14
Τ:	mean s.d. min.val. max.val. mean s.e. variance c.v.	22 15.08 8 47 6.75 227.50 68.56	14 3.54 8 18 1.25 12.55 24.65	9 5.08 3 19 1.61 25.83 59.80	10 5.62 2 16 2.13 31.62 58.75	11.86 13.38 2 40 5.06 179.14 112.88	7 6.65 2 17 3.33 44.25 91.75

Table H-2. Descriptive Statistics of Complete Tools, Site 41WM56 (Continued)

	ol Class oponent	Scrapers Round Rock	Scrapers Clear Fork	Notches Twin Sisters	Notches Clear Fork	Notches San Geronimo	Backed P. San Geronimo
	N	13	8	19	7	7	10
L:	mean s.d. min.val. max.val. mean s.e. variance c.v.	40 15.38 25 78 4.26 236.40 38.15	50 10.06 38 67 3.56 101.14 20.11	43 12.15 24 73 2.79 147.69 28.51	41 17.84 12 71 6.74 318.33 43.52	87 23.75 67 134 8.98 564.24 27.39	80 13.09 60 103 4.14 171.34 16.30
W:	mean s.d. min.val. max.val. mean s.e. variance C.v.	35 10.09 15 46 2.80 101.73 29.07	39 14.09 18 65 4.98 198.57 36.60	29.05 10.54 18 59 2.42 111.05 36.27	31 11.62 19 52 4.39 135.00 37.48	48 8.50 41 62 3.21 72.24 17.81	38 11.34 31 67 3.59 128.62 30.00
T:	mean s.d. min.val. max.val. mean s.e. variance c.v.	14 4.91 6 23 1.36 24.06 35.83	16 6.04 8 24 2.14 36.50 38.36	10 3.68 6 20 .84 13.59 37.55	11 5.62 6 23 2.13 31.62 49.20	12 5.42 7 21 2.05 29.33 45.13	11 3.13 7 17 .99 9.79 29.24

Table H-2. Descriptive Statistics of Complete Tools, Site 41WM56 (Continued)

Tool Class Component	Bifaces San Geronimo	Preforms Clear Fork
N	4	7
: mean	85	89
s.d.	9.43	16.88
min.val.	74	67
max.val.	94	109
mean s.e.	4.71	6.38
variance	88.92	284.90
c.v.	11.06	18.91
: mean	35	57
s.d.	6.14	10.90
min.val.	26	46
max.val.	39	75
mean s.e.	3.07	4.12
variance	37.67	118.90
c.v.	17.79	19.04
: mean	17	20
s.d.	1.71	5.63
min.va].	15	13
max.val.	19	27
mean s.e.	.85	2.13
variance	2.92	31.67
c.v.	10.20	28.14

Table H-3. Descriptive Statistics of Complete Tools, Site 41WM73

001	Class	Notches	
Comp	oonent	Round Rock	
	N	4	
L:	mean	69	
	s.d.	13.40	
	min.val.	54	
	max.val.	82	
	mean s.e.	6.70	
	variance	179.58	
	c.v.	19.49	
W:	mean	49	
	s.d.	15.37	
	min.val.	35	
	max.val.	64	
	mean s.e.	7.69	
	variance	236.50	
	c.v.	31.21	
T:	mean	12	
	s.d.	2.50	
	min.val.	9	
	max.val.	15	
	mean s.e.	1.25	
	variance	6.25	
	C.V.	20.41	

Table H-4: Descriptive Statistics of Complete Tools, North Fork Reservoir

	l Class ponent	5crapers Twin Sisters	Scrapers Round Rock	Scrapers Round Rock/ Clear Fork	Scrapers Clear Fork	Notches Twin Sisters	Notches Round Rock
	N	4	8	5	10	13	5
L:	mean s.d. min.val. max.val. mean s.e. variance c.v.	66 21.62 49 95 10.81 467.33 32.75	69 21.76 39 108 7.69 473.64 31.43	60 22.34 35 90 9.99 499.20 37.11	63 24.18 28 110 7.65 584.72 38.69	37 11.15 20 56 3.09 124.26 30.637	74 17.16 54 97 7.67 294.30
W:	mean s.d. min.val. max.val. mean s.e. variance c.v.	58 9.90 49 68 4.95 98.00 17.07	61 11.83 46 83 4.18 139.84 19.35	54 7.76 46 67 3.47 60.20 14.32	55 22.71 34 101 7.18 515.60 40.99	32 10.32 20 53 2.86 106.56 31.95	51 14.15 35 64 6.33 200.30 27.54
T:	mean s.d. min.val. max.val. mean s.e. variance c.v.	18.75 10.59 7 30 5.30 112.25 5.06	22 11.99 8 47 4.24 143.71 55.76	15 3.65 8 20 1.15 13.30 38.62	15 3.65 8 20 1.15 13.29 23.98	7.85 4.62 3 19 1.28 21.31 58.83	16 8.66 9 31 3.87 75.00 54.13

Table H-4: Descriptive Statistics of Complete Tools, North Fork Reservoir (Continued)

	ol Class oponent	Notches Clear Fork	Notches San Geronimo	Trun- cations Austin/ Twin Sisters	Trun- cations Twin Sisters	Backed San Geronimo	Burins Austin/ Twin Sisters
	N	9	7	4	5	4	4
L:	mean s.d. min.val. max.val. mean s.e. variance c.v.	45 23.16 15 98 7.72 536.28 50.96	30 13.46 12 47 5.09 181.2- 45.31	33 21.63 10 58 10.81 467.67 66.54	47 29.17 31 99 13.04 850.70 61.79	41 20.49 20 64 10.25 420.00 49.99	63 21.56 44 94 10.78 464.92 34.09
W:	mean s.d. min.val. max.val. mean s.e. variance c.v.	37 16.89 19 66 5.63 285.11 45.77	34.86 21.84 12 65 8.26 477.14 62.67	30 13.54 16 47 6.77 183.33 45.13	29 9.66 17 43 4.32 93.30 33.77	31 20.98 15 59 10.49 440.25 67.14	41 13.43 27 57 6.71 180.25 32.95
т:	mean s.d. min.val. max.val. mean s.e. variance c.v.	9 5.44 2 16 1.81 29.62 59.73	11.86 13.38 2 40 5.06 179.14 122.88	4 1.63 2 6 .82 2.67 40.83	9 4.39 4 15 1.96 19.30 51.08	7 6.65 2 17 3.33 278.33 56.55	12 4.24 7 16 2.12 18.00 35.36

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Table H-4: Descriptive Statistics of Complete Tools, North Fork Reservoir (Continued)

	ol Class ponent	Burins Twin Sisters	Burins Round Rock	Burins Clear Fork	Burins San Geronimo	Bifaces Twin Sisters	Bifaces Round Rock
	N	17	9	19	7	5	9
L:	mean	40	48	43	41	78	83
	s.d.	14.09	10.65	12.15	17.84	15.50	21.85
	min.val.	23	35	24	12	50	65
	max.val.	78	67	73	71	87	13.4
	mean s.e.	3.42	3.55	2.79	6.74	6.93	7.28
	variance	198.47	113.50	147.69	318.33	240.30	477.53
	c.v.	35.48	22.04	28.51	43.52	19.98	26.19
W:	mean	34	37	29	31	36	47
	s.d.	9.61	13.73	10.54	11.62	5.93	8.17
	min.val.	15	18	18	19	28	38
	max.val.	46	65	59	52	42	62
	mean s.e.	2.33	4.58	2.42	4.39	2.65	2.72
	variance	92.40	188.44	111.05	135.00	35.20	66.75
	c.v.	28.42	3 6 .88	36.27	37.48	16.57	17.8
τ:	mean	12	15	10	11	8	13
	s.d.	5.16	6.08	3.68	5.62	1.10	6.5
	min.val.	5	8	6	6	7	7
	max.val.	23	24	20	23	10	25
	mean s.e.	1.25	2.03	. 84	2.13	. 49	2.18
	variance	26.63	37.00	13.51	31.62	1.20	42.86
	c.v.	41.58	40.55	37.55	49.20	13.36	49.93

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Table H-4: Descriptive Statistics of Complete Tools, North Fork Reservoir (Continued)

Tool Class Component		Bifaces Clear Fork	Bifaces San Geronimo	Bifaces Clear Fork
	N	10	4	7
.:	mean	80	85	89
	s.d.	13.09	9.43	16.88
	min.val.	60	74	67
	max.val.	103	94	109
	mean s.e.	4.14	4.71	6.38
	variance	171.34	88.52	284.90
	c.v.	16.30	11.06	18.91
i:	mean	38	35	57
	s.d.	11.34	6.14	10.90
	min.val.	31	26	46
	max.val.	67	39	75
	mean s.e.	3.59	3.07	4.12
	variance	128.62	37.67	118.90
	C.V.	30 .00	17.79	19.04
r:	mean	11	17	20
	s.d.	3.13	1.71	5.6 3
	min.val.	7	15	13
	max.val.	17	19	27
	mean s.e.	. 99	.85	2.13
	variance	9.79	2.92	31.67
	c.v.	29.24	10.20	28.14

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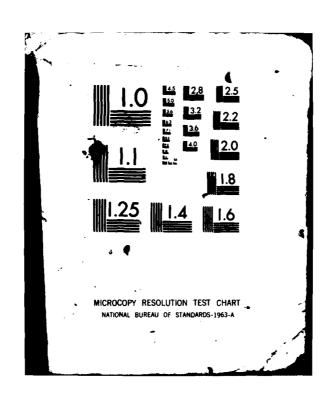


Table H-5: Descriptive Statistics of Complete Tools, Site 41WM124

Too	ol Class	Notches
Con	ponent	San Marcos
	N	4
L:	mean	32
	s.d.	8.19
	min.val.	24
	max.val.	40
	mean s.e.	4.09
	variance	67.00
	c.v.	25.99
W: mean		29
	s.d.	6.34
	min.val.	20
	max.val.	35
	mean s.e.	3.17
	variance	40.25
	C.V.	22.07
T:	mean	5 2.00
	s.d.	2.00
	min.val.	4 8
	max.val.	8
	mean s.e.	1.00
	variance	4.00
	c.v.	24.41

Table H-6. Descriptive Statistics of Complete Tools, Site 41WM230

	ol Class aponent	Notches Twin Sisters	Burins Twin Sisters	Burins San Marcos	Bifaces Twin Sisters	Bifaces Round Rock
	N	6	4	4	30	6
L:	mean s.d. min.val. max.val. mean s.e. variance c.v.	25 8.94 17 40 3.65 79.87 35.28	50 12.07 33 59 6.03 145.67 24.38	45 16.39 22 59 8.20 268.67 36.43	74 12.17 53 94 2.22 148.13 16.39	76 20.04 45 98 8.18 401.77 26.32
W:	mean s.d. min.val. mean s.e. variance c.v.	20 6.26 28 2.56 39.20 31.31	46 13.07 60 6.54 170.92 28.58	24 1.63 26 .82 67 6.80	46 14.88 70 2.72 2221.48 32.49	45 15.28 64 6.24 233.60 33.96
T:	mean s.d. min.val. max.val. mean s.e. variance c.v.	4 1.05 2 5 .43 1.10 29.97	17 6.08 8 22 3.04 36.92 36.27	8 .96 7 9 .48 .92 12.35	18 9.57 6 40 1.75 91.61 52.59	14 5.89 6 22 2.40 34.67 43.08

Table H-7. Descriptive Statistics of Complete Tools, Site 41WM267

	ol Class aponent	Scrapers San Marcos	Denti- culates San Marcos	Denti- culates Clear Fork	Notches Clear Fork	Notches San Geronimo	Trunca- tions Clear Fork
	N	8	4	10	5	7	5
L:	mean	67	49	46	36	42	31
	s.d.	14.60	28.41	17.88	11.97	18.70	20.4
	min.val.	47	32	20	26	12	17
	max.val.	84	91	70	54	70	66
	mean s.e.	5.16	14.20	5.65	5.35		9.1
	variance	213.14	807.00	319.73	143.20		417.8
	c.v.	21.79	58.57	38.70	33.06	44.22	65.1
W:	mean	65	46	41	25	29	27
	s.d.	16.91	9.98	18.81	12.39		8.2
	min.val.	33	37	9	15	15	17
	max.val.	87	59	74	45	43	36
	mean s.e.	5.98	4.99	5.95	5.54	3.67	3.6
	variance	285.84	99.67	353.79	153.50		67.7
	C.V.	25 .96	21.94	46.21	49.56		30.2
T:	mean	22	16	12	6	7	6
	s.d.	5.48	8.70	8.39	4.51	6.48	3.2
	min.val.	13	7	3	ş	2	3
	max.val.	28	27	25	1.	21	11
	mean s.e.	1.94	4.35	2.65	î.L.	2.44	1.4
	variance	30.00	75.67	70.40	20.30		10.7
	C.V.	24.90	56.12	71.12	70.40		56.4

Table H-7. Descriptive Statistics of Complete Tools, Site 41WM267 (Continued)

	ol Class oponent	Burins San Marcos	Burins Clear Fork	Bifaces San Marcos	Bifaces Clear Fork	Preforms San Marcos	Preforms Clear Fork
	N	6	10	4	13	4	6
L:	mean s.d. min.val. max.val. mean s.e. variance c.v.	47 16.32 31 68 6.66 266.30 35.09	48 19.06 17 74 6.03 363.16 39.37	70 16.79 46 85 8.40 282.00 23.99	75 22.19 10 99 6.15 492.31 29.65	81 12.42 70 92 6.21 154.25 15.38	77 24.84 48 119 10.14 617.20 32.26
W:	mean s.d. min.val. max.val. mean s.e. variance c.v.	32 13.02 18 48 5.31 169.47 40.26	26 8.20 14 38 2.59 67.29 31.31	40 14.70 28 58 7.35 216.00 36.74	29 4.54 3 44 3.20 133.06 40.20	52 9.00 41 63 4.50 81.00 17.48	46 8.09 31 53 3.30 65.47
T:	mean s.d. min.val. max.val. mean s.e. variance c.v.	10 5.31 4 17 2.17 28.17 52.20	9 3.77 6 16 1.19 14.23 40.57	17 4.43 11 21 2.22 19.67 26.88	12 5.68 1 23 1.57 32.24 47.63	25 6.22 20 34 3.11 38.67 24.87	21 2.43 17 24 .99 5.90

Table H-8. Descriptive Statistics of Complete Tools, Granger Reservoir

	ol Class oponent	Scrapers Twin Sisters	Scrapers San Marcos	Denti- culates San Marcos	Denti- culates Clear Fork	Notches Twin Sisters	Notches San Marcos
	N	6	13	5	10	10	8
L:	mean s.d. min.val. max.val. mean s.e. variance c.v.	43 25.20 15 89 10.29 635.10 59.30	64 17.87 22 84 4.96 319.36 28.02	51 25.13 32 91 11.24 631.70 49.48	46 17.88 20 70 5.65 319.73 38.70	30 9.65 17 43 3.05 93.07 32.37	36 15.90 24 72 5.62 252.56 44.79
W:	mean s.d. min.val. max.val. mean s.e. variance c.v.	39 18.74 13 63 7.65 351.10 48.67	57 20.28 23 87 5.63 411.44 35.30	48 10.55 37 59 4.72 111.20 21.88	41 18.81 9 74 5.95 353.79 46.21	24 11.54 11 53 3.65 133.17 49.11	31 13.76 20 63 4.87 189.41 43.87
T:	mean s.d. min.val. max.val. mean s.e. variance c.v.	12 8.92 4 29 3.64 79.50 77.53	18 7.98 5 28 2.21 63.69 44.91	17 8.25 7 27 3.69 68.00 48.51	12 8.39 3 25 2.65 70.40 71.11	4 2.50 2 11 .79 6.27 56.89	6 6.61 2 22 2.34 43.64 105.70

Table H-8. Descriptive Statistics of Complete Tools, Granger Reservoir (Continued)

	l Class ponent	Notches Clear Fork	Notches San Geronimo	Gravers San Marcos	Trun- cations Twin Sisters	Trun- cations Clear Fork	Backed San Marcos
	N	5	7	4	5	5	4
L:	mean s.d. min.val. max.val. mean s.e. variance c.v.	36 11.97 26 54 5.35 143.20 33.06	42 18.70 12 70 7.07 349.57 44.22	31 11.35 23 48 5.68 128.92 36.33	24 9.49 13 39 4.24 90.00 39.53	31 20.44 17 66 9.14 417.80 65.10	33 12.15 21 48 6.07 147.58 36.54
W:	mean s.d. min.val. max.val. mean s.e. variance c.v.	25 12.39 15 45 5.54 153.50 49.56	29 9.71 15 43 3.67 94.24 33.81	31 4.97 27 38 2.48 24.67 16.02	23 9.90 16 40 4.43 98.00 43.04	27 8.23 17 36 3.68 67.70 30.25	17 8.81 9 29 4.41 77.58 52.59
T:	mean s.d. min.val. max.val. mean s.e. variance c.v.	6 4.51 3 14 2.01 20.30 70.40	7 6.45 2 21 2.44 41.57 96.03	8 4.27 5 14 2.14 18.25 55.12	5 2.95 3 10 1.32 8.70 56.72	6 3.27 3 11 1.46 10.70 56.40	4 1.63 2 6 .82 2.67 40.83

Table H-8. Descriptive Statistics of Complete Tools, Granger Reservoir (Continued)

Tool Class Component				Burins Clear Fork	Bifaces Twin Sisters	Bifaces San Marcos	Bifaces Round Rock
	N	7	11	10	34	7	6
L:	mean s.d. min.val. max.val. mean s.e. variance c.v.	45 15.75 24 64 5.95 247.95 34.66	44.18 15.71 22 68 4.74 246.76 35.56	48 19.06 17 74 6.03 363.16 39.37	46 94 2.37	66 14.06 46 85 5.31 197.57 21.39	76 20.04 45 98 8.18 401.77 26.32
W:	mean s.d. min.val. max.val. mean s.e. variance c.v.	44 13.08 27 60 4.94 171.00 29.72	28 10.33 18 48 3.11 106.65 36.41	26 8.20 14 38 2.59 67.29 31.31	43 15.38 22 70 2.64	37 11.60 27 58 4.39 134.62 31.00	45 15.28 23 64 6.24 233.60 33.96
T:	mean s.d. min.val. max.val. mean s.e. variance c.v.	15 5.47 8 22 2.07 29.95 35.47	9 4.09 4 17 1.23 16.69 45.86	9 3.77 6 16 1.19 14.23 40.57	5 40 1.66 93.15	14 4.51 9 21 1.70 20.33 32.21	14 5.89 6 22 2.40 34.67 43.08

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Table H-8. Descriptive Statistics of Complete Tools, Granger Reservoir (Continued)

Tool Class Component		Bifaces Clear Fork	Preforms San Marcos	Preforms Clear Fork	
-	N	13	4	6	
L:	mean	75	81	77	
	s.d.	22.19	12.42	24.85	
	min.val.	10	70	48	
	max.val.	99	82	119	
	mean s.e.	6.15	6.21	10.14	
	variance	492.31	154.25	617.20	
	c.v.	29.65	15.38	32.26	
W:	mean	28.69	52	46	
	s.d.	11.54	9.00	8.09	
	min.val.	3	41	31	
	max.val.	44	6 3	53	
	mean s.e.	3.20	4.50	3.30	
	variance	133.06	81.00	65.47	
	c.v.	40.20	17.48	17.72	
T:	mean	12	25	21	
	s.d.	5.68	6.22	2.43	
	min.val.	1	20	17	
	max.val.	23	34	24	
	mean s.e.	1.57	3.11	.99	
	variance	32.24	38.67	5.90	
	c.v.	47.63	24.87	11.85	

Appendix I:

Hoxie San Gabriel Ranch Interviews

NARRATORS

Narrator	Interviewer	Date	Hours on Tape	Quality of Tape
Allison, Charles	Brooks, Gilmore	12-7-78	1	good
Allison, Charles and Mrs. Danna	Brooks	5-22-79	2	poor
Bible, Mrs. D.X.	Brooks	6-14-79	2	poor
Bryan, Mrs. Alvin and Bobby	Brooks	4-24-79	2	poor
Barton, Arthur P. and Prewitt, Mrs. Susie	Brooks	5-22-79	1	poor
Cornforth, Mrs. Ruby	Lavender	5-21-79	1	good
Dabbs, Mrs. Elizabeth	Lavender	5-17-79	1	good
David, Mrs. Elo	Brooks	5-25-79	1	good
Engdahl, Mrs. Carrie	Brooks	5-24-79	1	poor
Fox, H. B.	Brooks	6-18-79	1	good
Freeman, Martha	Brooks	1-19-79	3	good
Ging, Curtis and Tracy	Brooks	5-24-79	2	good
Juergens, Mrs. Ella	Lavender	5-10-79	1	good
Knox, Mrs. Raymond	Lavender	5-16-79	1	good
Lenz, Mrs. Herman Sr. and Herman Jr.	Lavender	5-79	1	good
Machu, Polacek, Ging Loesin	Brooks	6-13-79	3	good
Malek, Ernest	Brooks	5-25-79	1	good
Martin, Mr.&Mrs. J.B.	Gilmore/Humphries	5-9-78	1	good
Martin, Mr.& Mrs. J.B.	Lavender	5-9-79	2	good
Polacek, Mr.& Mrs. Rudolph	Lavender	5-21-79	1	good
Pope, Mrs. Hattie	Brooks	6-18-79	1	good
Redwood, Mary D.	Brooks	6-12-79	4	good
Richter, Langdon	Brooks	5-22-79	1	poor
Scarborough, Clara	Brooks	1-31-79	2	poor
Scarborough, Line	Brooks	10-7-79	1	good
Schroeder, Theo	Lavender	5-79	untaped intervi ew	
Whatley, Agnes Allison	Brooks/Gilmore	5-17-79	untaped interview	

Narrator: C. C. Allison, Austin, Texas

Date: December 7, 1978

Interviewers: Kathleen Gilmore and Roy B. Brooks

SUMMARY

Family History

C. C. Allison is the grandson of Francis Allison who bought the Hoxie Ranch in 1910. Hoxie obtained 38,000 acres from the Mexican government. Francis Allison bought 7,000 acres of this property in 1910 for \$50 an acre. He had tried to purchase it in the 1890's when the price was 50¢ per acre, but was unable to raise the money. From that point on the Hoxie land was sold in small parcels every year in order to pay off the mortgage. Three thousand five hundred acres out of the 7,000 acre original tract were sold in this manner. In 1915, upon Francis Allison's death, his son, Ferguson, took ownership of the property. He began to rent the land on halves--that is, tenant farmers rented the land and the landowners provided equipment. When land is rented on "thirds and fourths," the tenant rented land but provided his own equipment and animals. Cotton was the primary crop, maize and corn followed. One hundred forty-two sharecropping tenant families lived on Hoxie land at one time. Charles Allison has inherited the remaining 400 acres.

Hoxie Artifacts and Features

Mr. Benight has possession of the bell from the top of the old house. Forty to fifty various artifacts associated with Hoxie house

are extant. C. C. Allison has two chairs saved from the burning house; one is a carved dining room armchair.

The original Hoxie barn, built in 1839 had among its timbers tongues from wagons used to haul lumber from Corpus Christi. In 1942 the deteriorating three-story barn was demolished and rebuilt by Robert and John Crenig for \$225. After condemnation by the government, Allison bought back the structure for \$100 and salvaged the original lumber.

When Hoxie burned, a wooden lean-to structure on the back of the house which faced south was saved by pulling it away from the main house with mules or tractors. It was later incorporated into the "box house sitting on stilts" on the property.

In 1953 Mrs. Allison employed a Mr. Renicanek to fill in the Hoxie basement with a bulldozer. It had been used as a dump for two decades. Mr. W. D. Hubble witnessed this event.

Allison's Role in Hoxie History

Dr. Allison views himself as "a steward of the land." He would like to see several things accomplished in a report on Hoxie. He feels the thorough documentation of local history softens the blow of change. The following are major concerns of Dr. Allison:

- Documentation of the chronological line of people associated with Hoxie post-1937.
- 2) A lineage of the Hoxie house since its erection in the 1880's, including documentation and conservation of associated artifacts and features.
- 3) A report inclusion of the case he, Charles Allison, filed against the government concerning the dam

project, its objectives, impact, and disposition.

This suit was held before Judge Brown in the 5th Appellate Court in New Orleans, Louisiana in about 1973. It was one of the first environmental issue cases before this court. Allison was suing the government on a cost-benefit ratio basis. He was allowed to address the bench for about one and a half hours which was an unprecedented allotment. Allison and one lawyer stood against the Corps of Engineers and thirty-two lawyers and aides. This suit halted seven Corps projects for an eleven-month period at an estimated cost of \$49,000 a day. He felt that this case made government agencies reconsider their treatment of environmental issues and the impact resulting from their projects.

Allison would like to see excavations of Hoxie house and area folklore recorded. He tried to promote a museum on the site which involved moving the Allison's Flag Springs house onto the old foundations of Hoxie house. He planned to have interpretations of local culture and economy in terms of the Hoxie Ranch because it touched the lives of almost everyone in the area. He was unable to get support for the project and it fell through.

Hoxie Folklore

Mr. Martinka of Taylor is reported to have kept a detailed record of local folklore. Several stories of outlaws and robbers, one apparently documented, center around Hoxie. The house was said to be a way station for stage lines running from St. Louis to San Antonio, and from Kansas to Corpus Christi. Gold is supposedly buried on the property as a result of an Indian attack on a gold shipment intended for an Army payroll at San Antonio. There are tales of shooting, hangings,

headless horsemen and numerous shady dealings in Williamson County that all relate in some way to the Hoxie Ranch.

Narrator: Mrs. Elizabeth Dabbs, Taylor, Texas

Date: May 17, 1979

Interviewer: Linda Lavender

SUMMARY

Mrs. Dabbs was born in Taylor in 1912. Her father was from South Carolina, and her mother was a McDavid from Taylor. Mrs. Dabbs' maiden name was Lathan. She was married in 1936 and worked in the Taylor library for 14 years.

Mrs. Dabbs visited the Hoxie house in the late 1930's, three to four months before it burned down. Mr. Gernert owned the property at the time and gave Mrs. Dabbs permission to visit the house. Mr. Gernert's wife was the daughter of the Welch's in Taylor, owner of the First National Bank. When they married, the First Taylor National Bank, of which Mr. Gernert was President, merged with the First National Bank.

At the time Mrs. Dabbs saw the house, Mr. Sefcik was living in one room of the house, "batching it." Mrs. Dabbs described the house as very bare with no rugs, and not a stitch of paint. The basement was built to hide horses during Indian raids, but was used for storing and curing beef. The staircase was built with square lead nails and was, according to Mrs. Dabbs, very ungraceful. The house wasn't as pretty as the Allison home in Flag Springs. Though she remembers her husband saying there were trees in the back, Mrs. Dabbs remembers the residence as a "big, old stark house out there on the prairie."

Narrator: Mrs. Elo (Rose) David, 910 Kent St., Taylor, Texas

Date: May 25, 1979

Interviewer: Roy D. Brooks

SUMMARY

Early Years at Hoxie

Mrs. Elo David, born in 1912, lived on the Hoxie Ranch as a child with her parents, and later as a married woman. She and her husband were both of Czechoslovakian descent. Her parents moved from a farm in East Williamson County to the Hoxie property in about 1918, and lived in a bungalow which still stands. Her father, Joseph A. Marek, bought the Hoxie cotton gin, but the newly equipped structure burned down before it began operation. Arson was suspected, but not proven. The family never recovered financially from this blow and soon moved away. As a child, Mrs. David recalled the Hoxie house as "pretty" and that the Sefciks lived there at the time, along with a deaf, mute hired hand named Leroy, who she thinks the Sefciks brought back from Czechoslovakia.

Later Years at Hoxie

In 1942, after her marriage to Elo David, the couple moved back to the Hoxie Ranch. They lived in two houses at various times—the first was a small house "on the road that would go straight across the old rickety bridge." The second house was "on the hill where the old house stood." While they lived at Hoxie the barn was rebuilt, she thinks, by brothers John and Albert Benight. After the Hoxie house burned, the property had deteriorated. There was no water in the cistern and debris

and rubble filled the basement which seemed to Mrs. David to be about five feet deep. Other tenants on the property were the Beliciks and George Simcik. Mrs. David noted that although a close knit group, the Czechs tended to separate into Moravian or Bohemian segments. The Davids left their Hoxie residence after a rental dispute with the landowner, Mrs. Danna Allison, who wanted money per acre for rent rather than the "thirds and fourths" arrangement Mr. David preferred.

Flooding on the San Gabriel

After their move to the north side of the river, west of Laneport, Mrs. David recalls the "quick rain floods" on the river and sloughs which made crossing impossible. The children had to return from school in Friendship by way of Granger. The floods also deposited weed seeds on the fields creating hard work for the farmers to eradicate. The Simciks often had to evacuate because of flood waters. Their house was bought by the Mensinmeirs, and later by the Rables who moved it to a site near Taylor. Mrs. David remembered the 1921 flood as devastating. Below Laneport an entire Mexican family was drowned with the exception of one child who climbed a tree to safety and later erected a stone marker near Georgetown in memory of his family.

Friendship

Mrs. David's children began school in Friendship, before it consolidated with Granger. At that time it consisted of a gin, school, cemetery, grocery store, beer joint, and one or two houses. The Youngs, now deceased, lived nearby before they retired and moved to Granger.

Mrs. David remembered a few Mexican families lived there for a while.

Narrator: H. B. Fox, Circleville, Texas

Date: June 18, 1979

Interviewer: Roy B. Zapoks

SUMMARY

Family Background

Howard B. Fox, termed the "Circleville Philosopher," is an author and nationally syndicated columnist of thirty years. He was born in 1910, the third of seven Fox children: Wilson, a lawyer, now deceased; Walter, a newspaper man, also deceased; Mary Elizabeth, Bryan, Howard, and Francis. All the children were born in Granger and educated at Southwestern University in Georgetown. Their father, "an ambitious man," was from Fox Hollow, Tennessee and came to Taylor alone as a young man. He later brought his mother to Texas and supported her until her death. In Taylor he worked for a sawmill company, married, began a family, and started his own lumber business in Granger. H. B. fictionalized an account of his father's emergence as an independent businessman in his book, The Two Thousand Mile Turtle. He describes his father as an extremely hardworking, enterprizing, and admirable man.

While a student at Southwestern, Howard was threatened with expulsion in an incident involving a satirical issue of the <u>Megaphone</u>, the campus daily which he edited. Upon graduation with a degree in English, he spent a year in New York City, after which he returned to Texas where he worked as a reporter on the Taylor Press for \$15 a week during the depression. He later went to the Austin Dispatch, then

published his own newspaper in the East Texas town of Centerville where he met and married Marie Price, also a newspaper writer. He again returned to Williamson County in about 1944 after a stint in the Army.

Citizen Reaction to the Reservoir

In 1964, or "about fifteen years ago," locals supported initial word of a proposed reservoir. When the size and impact of the project became clearer, opinions changed and it was successfully resisted for twelve years. According to H. B. Fox, a strong objection to the reservoir is the method by which the Corps of Engineers acquired land. Threats of condemnation are aimed at "weaker" landowners and unfair prices result. Fox claims people were in favor of flood control, but preferred small check dams along the river which would have provided many small ponds rather than one huge shallow reservoir with a widely fluctuating shoreline. Citizens organized a water district which supported the small dam system by a three to one majority. A meeting in Georgetown overwhelmingly opposed the reservoir project. Fox further claims that a year or so after this meeting the Corps held another meeting in Austin, but notified only those in favor of the project; thus the record shows unanimous support.

Narrators: Mr. and Mrs. Curtis Ging, Mr. and Mrs. Pope; Granger, Texas

Date: May 29, 1979

Interviewer: Roy D. Brooks

SUMMARY

Family History

Mr. and Mrs. Ging lived on the Hoxie Ranch near the site of the old Hoxie house from 1968 to 1974. They farmed for Dr. Charles Allison, the present owner and descendant of Francis Allison. The Gings took over the property after Mr. Lenz, the previous tenant, died. They lived on the property during Dr. Allison's litigation with the Corps of Engineers and while surveying for the dam and purchasing property for the reservoir was taking place.

The Ging children are the fourth generation of Mrs. Ging's family living in the "'Gabriel Valley." She is a member of the Polacek family. Her grandfather Polacek came to Williamson County from Czechoslovakia in the late 1800's. Mrs. Ging's mother was a Hadja, also of Czechoslovakian origin.

Mr. Ging's grandfather, Herman Ging, was born in Switzerland and came to America with his family in 1884. Herman Ging was two years old when the family first arrived in America and settled in Bellville, Texas. Five years later, in 1889, the family moved to Copeland, Texas and began to cultivate land there. January 4, 1901 Herman Ging was married to "Grandmother Ging" (Maiden name lost due to gap in tape) who was living in Copeland but had originally come to America from Germany. Mr. Ging's father was a child of this union. Mr. Ging's

mother was a member of the Getz family. This family came to Texas from Illinois in a wagon before she was born.

Farming at Hoxie

The Gings took over the farm on the Hoxie Ranch in 1968. At the time they moved there the river bottom land was very overgrown. This was probably due to the extended illness of the previous tenant, Mr. Lenz. It was impossible to walk through this "bottom land" which was overgrown with briar, small trees and brush. Mr. Ging and Dr. Allison shredded and cleared this area and thereafter it had to be cut four to five times a year to be maintained.

At the Hoxie place the Gings raised cotton and maize on thirds and fourths and cattle on halves. The sixty head of cattle grazed on a 250-acre pasture. By this time, the use of sophisticated farm equipment was much in evidence. The Gings mention using such things as a 6 row shredder with hydaulic lift (implement pulled by tractors) stripper trailers (pulled by tractors) 560 Farm All tractor, John Deere Tractor, and combine for maize.

Hoxie

Mr. Ging states lots of artifacts could be found just laying around the pastures on the Hoxie. He mentions snuff bottles, arrowheads and parts of an old wagon in particular. At the time the Gings lived near the old Sunnyside site the cistern and evidence of a brick side—walk from the old house were still there. Mr. Ging feels sure he could point out the parts of the foundation wall of the old cellar. The well on the site never dried up the entire time the Gings were living there.

Mr. Ging relates that at one point in time it was possible for taxpayers to pay off their taxes by hauling gravel from the gravel pit. They hauled two or three loads on the county road and their tax money was paid.

Often University of Texas and Southwestern University fraternity groups would bring freshman students down to the San Gabriel River bottom for initiations. The Gings recall several incidents of students being dumped near their house dressed only in tow sacks. This was usually done in freezing weather and the semi-clothed students would be expected to find a way back to campus on their own. The Gings speculate that the area was popular for this sort of thing because it was rather isolated and there were no towns nearby.

There was a beautiful picnic spot on the "bottom" land near Hoxie Bridge. The Gings went there often to picnic and also gave permission for groups and individuals to camp and barbecue there from time to time. This spot was underneath a large pecan tree. Mrs. Ging's father, Mr. Polacek, recalls this tree as being large when he was small (he is now seventy).

Flooding

According to the Gings, extensive river flooding occurred in 1921, 1957, 1968, and 1974. Their only experience with flooding was in 1974. The high water washed all their fences away. The river stayed up about a day before receding. Ging states that the area's main runoff is from Georgetown. It normally takes high water about 24 hours to get from Georgetown to the Granger area. So, if there were big rains in

Georgetown, there was always about 24 hours warning. This enabled residents to move their cattle out of low areas and prepare for high water.

Folklore

About midpoint in the conversation, friends of the Gings, the Popes, arrived and a more general discussion began. Tales of ghost stories were reviewed for the interviewer and then a general discussion on the dam and the Army Corps of Engineers ensued.

Mrs. Ging's father, Mr. Polacek, and her uncle, Luke Polacek, tell several stories about ghosts on the Hoxie Bridge. Mr. Ging feels these are "crap" but the others are not so sure there isn't some truth to them. Mr. Pope tells the story of a group of young people going to the Hoxie Bridge to check out the ghost stories. There were five or six young men in the group but by the time they got to the bridge all of them had "chickened out" except one who didn't get scared. No one saw him for two or three days after this. When the young man did appear, his black hair had turned completely white. Mr. Ging feels the rest of the boys went back and scared him badly, causing the hair to turn white. Mrs. Ging feels her Uncle Luke was present on this occasion. Mr. Pope feels sure it is true that the young man's hair turned white, as he has heard it from many different sources. Mrs. Ging states her father tells this story and it is true.

Mr. Ging states "they say" that old man Simcik burnt it [Hoxie house] down, "...they said he set it on fire making his home brew and burnt it down." Mr. Pope agrees that it happened-differently from the way it was supposed to have happened.

Hoxie Community and the Army Corps of Engineers

The Gings lived at Hoxie during the time surveying for the dam was conducted. Surveyors began coming on the land about 1972. Mr. Ging had problems with them driving across the crops on his river bottom land near the San Gabriel. Several stories about landowners forcing surveyors off the land at gunpoint which occurred at this time were related. Fences were cut often during this same period. When word got out that the government was buying land, people began to come onto the Gings' property to fish or camp, thinking it was already government land. Trespassing became a real problem after the government began buying. At first it wasn't a problem. Fences were cut mostly to gain access to land on the river bottom.

Mrs. Ging's father, Mr. Polacek, was the third person to sell his land to the government for the dam project. Mr. Ging tried to talk the seventy-year-old Czech gentleman out of selling so soon for what Ging considered to be a small price, but to no avail. Mr. Polacek sold his 60 or 70 acres for \$480.00 per acre and got to keep his house. Polacek felt this was quite a good deal since he had originally bought the farm for \$68.00 per acre. However, according to Mr. Ging, toward the end of the land buying process, the Corps was paying over \$400.00 per acre for easement privileges and much, much more than this to the land-owners who held out.

The Gings and the Popes all feel that a lot of people in the area have bad feelings about the Corps of Engineers. Some of this is due to the way land sales were handled. Ging resents the "damn high fired real estate guys." Pope stated that what made people the maddest

is that these real estate people went first to the older people, such as Mr. Polacek, who were ready to retire. The whole group seems to feel there was some sort of conspiracy, that the Corps must have had inside information to know to pick first on elderly people who were vulnerable. After these people began to sell, the remaining ones didn't have a chance to continue the fight.

After houses were beginning to be sold and vacated, a lot of stealing began to occur. The Popes had three gates stolen. The Gings had an 18-foot metal gate, chain and lock stolen near the picnic grounds by Hoxie Bridge. Another resident, a neighbor of the Polaceks, had his well pump stolen during the hour and a half he left his house one Sunday to attend church services. The group felt incidents such as this were not done by local people but by people from farther away who knew the situation.

The Gings fought moving off Dr. Allison's land for a number of years, but were finally given a warrant to move off the property.

Mr. Ging states he was told by the Corps people he would receive \$10,000.00 to move, but the Corps has never come up with what they promised him.

So far, he has been paid between six and seven thousand dollars and states, "And then we had to figut to get that." Mr. Ging also feels he was given the "run around" by the government on a number of occasions. ". . . I learned one lesson, never deal with the government unless you've got money in your hand." And Mr. Pope affirms, ". . . the least you have to do with the government, the better off you're going to be."

The Gings and the Popes felt that politics had a great deal to

do with the Granger Dam. They feel the dam was put there because a few people involved in politics wanted it there. They relate that Wilson Fox wanted the dam put where his property would be affected because his land was legally tied up by his father's will which stated it must be handed down to a son and a grandson before it could be sold. Ging states there was a lot of fighting against the dam but it didn't do any good, because there wasn't any politics involved. "There were no real important people involved. The only people against it were the poor farmers—the politics were for it." People went to meetings about the dam for years but it didn't seem to do any good. Ging also states, "Granger has lost—Taylor and Georgetown are for the dam one hundred per cent."

Mrs. Pope recalls the plight of people at Friendship who for thirty years never knew what the government was going to do. They didn't know whether to remodel houses or make improvements on land, "everything was in limbo."

The group felt the economic situation in Granger has also been affected because so many people have moved out of the area. The school system is in financial trouble due to loss of tax money and many businesses have closed down.

Skepticism was expressed about the dam itself. The group feels that the dam won't do much good and that with large rains, flooding will occur despite the dam.

Narrator: Mrs. Ella Etzel Juergens, Taylor, Texas

Date: May 10, 1979

Interviewer: Linda Lavender

SUMMARY

Mrs. Ella Juergens was born July 22, 1908 in Round Top, Texas on Cummins Creek. When she was 18, she was hired as a teacher by the community located on Hoxie lands. She was hired on a 6½ months contract in 1926 to teach grades 1-4 and was paid \$80.00 a month. In the beginning, she lived with her husband and his uncle and aunt in a one-room house 100 yards from the school. She taught 32 children of mostly German and Czech descent, obtaining state-issued textbooks from the depository in Georgetown. The school had no library or PTA; but there was a Christmas program and the teachers often took the children for picnics by the Hoxie Bridge on the banks of the San Gabriel. The nearest school for Blacks was in Friendship, and there was one Mexican family in the area.

By this time, the main Hoxie Ranch had been broken up into small individual farms, and the house was unpainted and no longer a central meeting place for the community. Neighboring families included the Jacobsons who lived on Hare Road and the Tomaceks who lived across from the Steinke's house. Around the corner were the Richenbacks, the Millers, and the Remmerts. Juergens also mentions the Bergs who owned land there.

Later in the school semester, she and her husband moved to the Steinke's Negro house because the house next to the school and the

nearby cotton gin were sold. The house had no water and they had to carry it from the Steinke's house.

At the completion of her first year of teaching, she was transferred to Waterloo because the trustees felt she was too strict a disciplinarian.

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Narrator: Mrs. Raymond Knox, Taylor, Texas

Date: May 16, 1979

Interviewer: Linda Lavender

SUMMARY

Family History

Mrs. Knox was acquainted with the Hoxie Ranch as a child. Her father worked seventeen years for Frances Allison. Mrs. Knox, whose maiden name was Willie Blum, attended school at the Hoxie School. Her father, Oscar J. Blum, farmed thirds and fourths for Mr. Allison on the Hoxie Ranch. Mrs. Knox's mother was related to Mrs. Lankford whose husband was ranch foreman at Hoxie. The Blums referred to the Lankfords as cousins.

Description of Hoxie House

Mrs. Knox visited the Hoxie house often as a child and was able to recall several details concerning the house, basement, and out-buildings. She feels that teams of horses were actually driven into the cellar. She also recalls "Uncle Johnny," a Scotch-Irish gentleman who had a dog named Sprig and who worked for the Lankfords (see Redwood).

Description of Tenant House

The Blums lived in a tenant house on the ranch. It was described as being an ordinary house with a kitchen, dining room, three bedrooms and a porch. The Blums also had an outside cellar in their yard where they went when storms came up. If Mrs. Lankford was at home by herself

when a storm came up she would hitch up her buggy and ride over from the Hoxie house to take shelter in the Blums' cellar.

Crops and Stock

Knox states the land on the Hoxie Ranch was wonderful and her father raised everything. Cotton, corn, and sugar cane were raised primarily. Maize was not grown or known of at the time. Although the cane was real sugar cane, it was not pressed into molasses but was used instead for feeding the stock. Mr. Blum only kept what livestock he needed to work his farm. He farmed with mules. Two horses were kept to pull the fringe-top surrey and a buggy.

Hoxie Ranch History

After the Lankford family left Hoxie, the Lewis family moved into the Hoxie house. This family had a number of children; one of the sons, Orin Lewis, is still living at Marble Falls.

Around 1919 Mrs. Knox moved away from Hoxie Ranch. At this time the Lewis family was still in the house. She returned to the house later to attend dances when the Benight family were living there. Mrs. Knox met her husband of 59 years at a dance held by the Benight family in the Hoxie house. She recalls a large attendance at these functions. There was usually a band playing. She could not recall whether there was a charge to get into the dance. She believes the Benights came when the Lewises left around 1920.

Also mentioned in the interview was the shooting incident involving Mr. Allison and Mr. Wright. This occurred at the Taylor bank; Mr. Wright shot and killed Mr. Allison.

Mrs. Knox stated that area residents often picnicked around the Hoxie Bridge. It was a frequent Sunday gathering place for the children who lived near there.

Narrators: Mrs. Herman Lenz, Sr. and Herman Lenz, Jr. (Pee Wee)

Date: May, 1979

Interviewer: Linda Lavender

SUMMARY

Family History

Mrs. Lenz and her family have lived and farmed on Hoxie land for many years. Herman Lenz, Jr. was born and lived on the farm until 1954 when he moved to Taylor to work at a funeral home.

Depression Era Farming and Later

Mr. and Mrs. Lenz began farming at Hoxie with seventy acres in 1934. They raised hogs, chickens, and cattle, which they sold at auction. They did all the farm work themselves, growing most of their food, and selling milk, cream, and eggs for cash. Mrs. Lenz "put up" vegetables regularly from the kitchen garden. The main crop was cotton, for the land was "good cotton land." Corn and maize were of less importance and more difficult to harvest. They had to "top by hand" these crops, lacking machines to do the work. Corn and Maize were fed to the chickens, seeds were saved for planting, and the stalks went to the other animals. Although Herman, Jr. remembers his father always having a tractor, one with metal lug wheels, mules were used extensively. Mrs. Lenz remembers working corn with four mules and a double row cultivator.

After planting, farmers used a curved metal wheel pulled by mules or horses to press down the soil. This kept moisture in the soil, preventing the seeds from drying out and was called "rolling."

Fertilizer wasn't used much, though dry manure was sometimes spread on the fields. Yields weren't as much as one bale per acre. Harvest began in July for cotton and corn, and hay was stacked for the cattle. Most people owned their own cotton strippers, but combines were often rented for other crops. The usual payment was "so much per hundred pounds to cut and haul."

Most of the Lenz's neighbors were Germans and Bohemians who helped each other out in times of need. When Mr. Lenz was ill, twenty-four friends and neighbors spent two afternoons stripping over one hundred acres of cotton for the family.

What they didn't provide for themselves the Lenzes bought in Taylor. "Odds and ends" were purchased at the Hoxie store which carried canned goods, bread, and flour. Prices there were higher on some items and lower on others than stores in town.

Lenz recalled C. C. projects in the area responsible for constructing "terrace spillways" for erosion control. Mrs. Lenz remembered the beef co-op meetings in the Hoxie house basement.

In 1966 Mr. and Mrs. Lenz moved to a small white frame house near the site of the old Hoxie house. This farm consisted of approximately 400 acres. By this time most farms had become larger. Most of the land was used for cattle, but some crops were still grown. A few farmers continued to sharecrop on thirds and fourths. To the Lenzes' knowledge, halves were not as common. This last residence was very near the old Hoxie basement which had been filled in some years before. Numerous bricks and stones were the only remnants of the house, no ornamental plants or other artifacts were noted by the Lenzs.

Narrators: Albin Machu, Rudolph Polacek, Tracy and Curtis Ging, and

Les Loesin

Date: June 13, 1979

Interviewer: Roy D. Brooks

SUMMARY

The Gings, Mr. Machu, Mr. Polacek, and Mr. Loesin were renters or workers connected with Hoxie Ranch. They mentioned several others who were also associated with the property: George Hare, who owned much of the land where the town of Old Allison once was, Mrs. Gilstrap who lived in a log cabin near Hoxie, Wilcox, Eubank, Shoemake, Burkett, and Kirby Vance.

Hoxie Gin and Loesin

Mr. Loesin's grandfather bought the Hoxie gin from A.C. Sterns around 1926 and converted it to hydraulic power. It was a "two in one" gin, two gins in one room. Stearns could gin about four bales an hour with "hand-tromp presses." Men "tromped" the cotton "below the dog in the pressbox." Loesin's grandfather was "ousted" from the Hoxie place during prohibition for distilling whiskey. Loesin has since sold the gin which is in the slow process of being dismantled. The gin hasn't operated since about 1974.

Hoxie House

Rudolph Polacek, born in 1908, rented a house from Ferguson Allison and worked for the Maleks who lived at Hoxie. He used to sleep in the Hoxie house and remembered it was full of Hoxie furniture, and had two pool

tables, one each on the first and second floors where he would shoot pool with the Malek boys. Machu claims the "four"-story house burned in 1937 for two days. Ging heard the rumor that Sefcik was making home brew inside the house and set it on fire. Several stories circulated about the fire's cause. Loesin heard a chimney crack caused the house to ignite. It was thought that Ferguson Allison owned 21,000 acres of Hoxie and wanted to divide and sell it in thirds, and this was related to the fire.

Hoxie Store

The Hoxie store was said to carry a good stock of general merchandise, everything from hardware to candy and flour. Most of the flour was brought from Salado but a small amount came from a mill in Jonah.

Miscellaneous Information

No one had much knowledge of Old Friendship before the 1921 flood. At that time people "didn't travel around much. . .from daylight to dark you stayed in the fields." The 1921 flood washed away the old Hoxie bridge. Loesin helped rebuild the new bridge in 1956. The group claimed the new levee caused the water levels to rise higher in 1957 than in 1921.

The group remembered limestone was quarried below the old gin near the Simcik place. They also described exploring extensive caves on the Kirbey Vance place which Loesin compared to Innerspace Caverns. Narrators: Mr. and Mrs. Ernest Malek, Taylor, Texas

Date: May 25, 1979

Interviewer: Roy B. Brooks

SUMMARY

Family History

Ernest Malek of German-Czech descent, lived on the Hoxie Ranch site for a number of years. He first came there from El Campo, Texas shortly after the big flood of 1921. Malek's father was a trained blacksmith and had had his own blacksmith shop in El Campo. The Malek family, which included twelve children, farmed on the former ranch site for Mr. Gernert--president of the First National Bank of Taylor at that time--and lived in the Hoxie Ranch house (Sunnyside).

Mrs. Malek never resided on the ranch but was born and raised in Williamson County. Her father was Paul Malish of Williamson County and her mother was Anastasia Stresinger who came to Williamson County from Moravia, Czechoslovakia when she was eight years old.

Of the twelve Malek children who came to Hoxie Ranch, seven were boys. Mr. Malek's father was able to farm quite a large area for Mr. Gernert with the help of his sons. As a youth, Malek helped a sheepherder, Bibliano, care for sheep that Mr. Gernert kept on the land and was rewarded for his work by Gernert with paper boxes of Prince Albert tobacco.

Malek recalls a few details about the ranch house, including the basement and cupola, especially. He describes large double doors on the north side of the house opening to wide steps which led down into

the cellar. Fixtures for carbide lighting were in place in the basement but lanterns were used instead during the Maleks' stay there. To Malek, the cellar seemed so large that a wagon could have almost been turned around in it. He feels both Granger and Taylor could be seen from the cupola and was told by Mr. Livingston, an old cowboy still residing on the ranch, that a lantern was hung in the cupola at night as a beacon to guide the cowboys back to the ranch house. Malek also recalls the porch of the house being so high off the ground that the children could play tag underneath without bending or stooping.

Malek was the second brother of the family; his oldest brother lived in a small house east of the Hoxie house and farmed his own place which included bottom land next to the San Gabriel River. 1925 was a very dry year in the area and everyone had to sell cattle. During this period Malek's brother left his small tenant farm to seek work and Malek eventually took this place over for Mr. Gernert. Malek borrowed money from Mr. Gernert to purchase a team of mules. Mules could be used for as long as 15 years and at that time all farming was done with mules; "...we didn't know what a tractor was."

Crops

Malek grew cotton, corn and some cane at his place on the Hoxie Ranch. Maize was not grown at that time. Malek worked on thirds and fourths for Mr. Gernert but states that Gernert also had a lot of half renters working for him.

Artifacts

When the Maleks lived in the ranch house most of the fancy furniture was still in it. Mr. Gernert gave Mr. Malek a dresser from

the house when he moved out of the big house to his small tenant house. This was a reward for the good work Malek had done while living with his father on the large place.

General Information

At the time Malek was living on the ranch most of the land was under cultivation but he understands that when the Hoxies were the owners it was mostly pasture land used for running cattle. Malek can recall no large animals or even deer on the Hoxie while he was there. There were lots of fish, however. Malek also recalls many large soft shell pecan trees near the Hoxie Bridge on Mr. Gernert's property. These trees bore many large nice pecans.

The bottom land near the 'Gabriel is the richest farming land in the area but much of the bottom is flat with no banks; when the river comes up everything is flooded. One year, Mr. Malek lost most of his cotton crop, which was in a trailer ready for ginning, to high water from the Gabriel. "They must have had a big rain in Georgetown, all that water come up and my trailer was halfway under water, cotton in it."

Malek's father stayed in the big house and farmed until his sons began to get married and leave home. Feeling he could no longer farm such a large area, he moved to a smaller place. (See Martin, 1979) Ed Sefcik rented the house and land after Malek's father left.

Malek remained on his small tenant farm several more years after his father left, but eventually moved off the Hoxie. Although his reason for moving is vague, concern over flood damage seemed to be at least a partial cause. Malek is unsure when he left but it can be

estimated from other dates he gave that it was between 1927 and 1933.

Folklore

When asked about some of the folklore stories that are told about the ranch, Malek remarked, "Shoot, . . . never did see nothing, never did." He states that the Polacek boys told the story about the headless man on the Hoxie Bridge and it was "just a lie." Malek fished under the bridge and hunted 'coons all around the area many times at night and saw no ghosts at any time. Malek also recalled that many other people from Granger fished under the bridge at night and failed to see anything unusual.

Narrators: Mr. and Mrs. J. B. (Bun) Martin, Taylor, Texas

Date: May 9, 1978

Interviewer: Kathleen Gilmore, Jerry Humphries

SUMMARY

(Although this interview was done prior to the May 9, 1979 interview, it is much less complete with regard to information concerning Hoxie Ranch and the Martin family background. Therefore, it should be used merely as a supplement to the May 9, 1979 interview.)

Family History

Mr. Martin was born at Yegua Knob, Texas. His father, also, was born there in the year 1861. Martin's grandfather originally came to the area from a town northwest of Chicago, Illinois. He was conscripted into the Confederate Army and fought against one of his brothers at the Battle of Vicksburg.

Farming Near Hoxie Ranch

At one time the Martins lived in a house southeast of the Old Friendship Cemetery near Hoxie Bridge. This house was just a small, four room house—two good big rooms, two shed rooms and a little bedroom on the porch. The house was typical of most houses in the area; termed "box houses," they could be built for little money. Most were specifically built for renters. "Back in those days, you could get the best lumber in the world for twenty dollars a thousand feet, twenty-five."

Martin states that the Allison family were "strong" on renting their land to Bohemians who came from the old country and couldn't speak English. This group rented property mostly on halves with the Allisons furnishing tools, teams and equipment necessary for planting and harvesting. The Bohemians would work the fields and gather the crops and harvest was split on a fifty-fifty basis.

The area was slow being put into cultivation with only an estimated fifty percent in cultivation around the turn of the century. The country was covered with many large mesquite trees and a great deal of work was required to clear these out.

Although many of the Bohemians rented on halves, the main method of sharecropping was thirds and fourths. A third of the feedcrop--corn, cane, any kind of grain, oats, wheat--went to the landowner and a fourth of the cotton went to him, also. The average farmer planted a lot more cotton than grain. The grain was planted primarily for stock feed. Stock included mules, horses, cows and a few hogs and chickens. The balance of the planting would be cotton because many farmers in the area were "...strong on cotton." This system went on for some fifty years until the New Deal "took over" and changed farming methods considerably, according to Martin.

Flood of 1921

Martin discussed the flood of '21 at length. He estimates at least 40 inches of rain fell in a 24 hour period, disputing the official amount on record of 26% inches.

Impact of the Cam

Reminiscing about the Old Friendship community, Martin states,
"I tell you since we moved away from there that's the worst mess I ever
saw. That makes me feel bad, that was once one of the best communities
anybody ever lived in. Had a good strong church; it was good farming
country and a good bunch of people lived through there, that community."

Narrators: Mr. and Mrs. J. B. (Bun) Martin and daughter, Maureen,
Taylor, Texas

Date: May 9, 1979

Interviewer: Linda Lavender

SUMMARY

Family History

Mr. Martin and his wife lived and farmed for almost forty years near the Hoxie Ranch. Mr. Martin comes from a farming family and was born at Yegua Knob, Texas. Mrs. Martin is a great-granddaughter of Joseph Rubarth, who came to America from Germany and settled in the Williamson County area in 1836. She is a stepdaughter of R. C. (Crawford) Allison.

In addition to farming, Martin assessed taxes for a portion of Williamson County, including the former Hoxie Ranch for an eighteen year period between 1926 and 1944. In this capacity he visited every house in the area many times. He moved into Taylor in the Fall of 1944 when he entered the real estate business.

Mrs. Martin first visited the Hoxie Ranch as a child around the turn of the century. She accompanied her grandmother on a visit to a Mrs. Malley who lived near the ranch house. They did not go into the house but she recalls the gin and store that were on the site at that time. However, Mr. Martin does not recall a store being there when he and Mrs. Martin moved to the vicinity in the Fall of 1904. At that time, the house was occupied by the Lankford family; Bob Lankford was overseer of the ranch for the Hoxies.

Description of Hoxie House

Martin recalls the Hoxie house as being a large three-story with a big dance hall upstairs. He states the house actually had only ten or twelve rooms although it was generally thought by the area residents that it contained thirty-two rooms. There was a cupola on the top and the story was told that from this vantage point the man operating the ranch checked up on his men with field glasses.

Hoxie Ranch History

Frances Allison and Fred Welch bought the ranch in 1910 and immediately began selling it off in small tracts. Possibly 99% of these were sold on terms. "Bohemians bought lots of it and they just didn't have much money, they'd buy maybe a small tract, fifty acres on up to a hundred."

Even after the ranch was subdivided and the Hoxies were gone, the land still maintained the identity of being the Hoxie Ranch. As Mr. Martin states, "I'd say the people who've come in the last twenty-five or thirty years would even recognize it as being the Hoxie Ranch yet; I'm sure they would."

Tenant Farming

During the time the Martins farmed in the Hoxie Ranch area, tenant farming was the accepted way of life. There was no stigma attached to this mode of living as, "The greatest part of the farming that was done through this country was tenant farming." The farms were usually rented on thirds and fourths. A third of the grain and a fourth of the cotton went to the landlord and the remainder was kept by the

tenant. In this system the tenant supplied the tools and teams and the landlord provided the land and "...a house to live in, such as it was; some of them were pretty bad." Many of the houses—called box houses—were made out of twelve inch boxing planks. These were one wall thick with strips to cover the cracks on the outside. Later, these houses were papered on the inside or sealed with beaded ceiling or shiplap.

There was also a tenant system based on halves in which the tenant was supplied team and implements by the landlord and then split the crops fifty-fifty with him. Martin recalls no Black families who worked thirds and fourths, but thinks there may have been a few Blacks working halves for another tenant farmer.

As tax assessor, Martin assessed all the tenant farms in the Hoxie Ranch area. The tenants were assessed only on personal property and most tenants had nothing other than this. An average assessment would usually consist of stock--mules and horses, a few cows, sometimes hogs-- and implements such as plow tools, machinery, wagons and buggies. No household goods were assessed.

General Farming and Depression Era

According to Martin, during World War I many farmers left the farm for higher wages with the federal government and this made it hard on the farmers who were still trying to farm. The compulsory school law also had an effect on farming in the area. Previous to this, the school term was fixed around planting and harvesting times. Six months is the longest school term that Martin remembers having attended in his boyhood.

The Depression had a definite impact on the area although, as Martin states "...didn't anybody starve to death out our way because the farmers that far back raised their own meat, mostly, and had chickens and eggs and milk and butter....all you had to buy would be sugar and coffee and flour. But money was hard to get; there just wasn't any."

He feels the country would have snapped out of the depression if Roosevelt hadn't "...started the New Deal and began a give-away program that was very inconsistent. They started the farm program which worked out bad in the end; it had a tendency to move lots of renters off the farm." In the Hoxie area the government was paying farmers to cut down cotton production; so much an acre was paid to lay out a certain portion of the cotton acreage. Landlords found they could make just as much money by letting the renters go and collecting money for not farming cotton.

General Information

A feud between the Beard and Dyches families who lived in the ranch area was mentioned. Martin states, "They liked to have killed each other out," but he is not sure what they "got crossways about."

The Martins both feel sure a beef club met in the basement of the Hoxie house for many years but recall no specific details on this. Usually members of a beef club would meet once a week. Each member contributed a yearling to butcher and a number of families were involved.

The Martin family members voiced different opinions over the date

The state of the s

the Hoxie Ranch house burned but agreed the Sefciks, a Bohemian family, were living there at the time. Some of the original Hoxie furniture was still in the house when it burned, although much of it, by that time, had been lost. A series of tenant farmers had occupied the house since the 1910 subdivision of the property, and Martin feels that as different families moved out of the house, they would take a piece or two of the Hoxie furniture with them. After the house burned, the Sefciks continued to live near the site a few years longer in a "bungalow house" that was built there for them to occupy.

When asked what people in the area did for entertainment, Martin said there were a few dances. The Bohemians, Germans, and Swedes had their own way of life and, often, religion—the Bohemians being mostly Catholic. Weddings and birthdays in these ethnic groups were rather big affairs—". . .they'd really take a big pot and a little one."

Funerals were more informal. There was very seldom a church service, usually only a graveside service at the cemetery. People living in the community would dig the grave. Coffins, as they were called then, were typically narrow at the feet and widened out at the shoulders. "Twenty-five dollars was a big price for a simple coffin." Some coffins were homemade by family members.

Narrators: Mr. and Mrs. Rudolph C. Polacek, Hoxie, Texas

Date: May 21, 1979

Interviewer: Linda Lavender

SUMMARY

Family History

Mr. Polacek has lived almost all his life on the Hoxie Ranch.

Mrs. Polacek moved to the ranch in 1932.

Mrs. Polacek's maiden name was Provashik, a Czech name which means "roper" or someone who makes ropes. Her father was born in Vienna, Austria although his parents came from Moravia, Czechoslovakia. At age 24, Mrs. Polacek's father emigrated to America.

Mr. Polacek is also of Czech descent. His father was Cyril Polacek. Polacek's parents came from Moravia, Czechoslovakia and two brothers and two sisters were born there prior to the family's arrival in America. Eventually, the family had five sons and five daughters. However, one brother and two sisters died in childhood and are buried in Taylor.

The Polacek family bought land on the Hoxie Ranch from Mr.

Allison. Polacek has early memories of the farming families around the Hoxie helping each other pick cotton, pulling the cotton bolls out, and using the husks in fires.

Hoxie Ranch General History

Polacek remembers the Malek family living in the large Hoxie house. Mrs. Polacek confirms that the Maleks were living in the big

house when she moved there in 1932. Polacek recalls Mr. Malek being a blacksmith with great strong forearms who had a blacksmith shop east of the Hoxie house. The couple feels the blacksmith shop was probably already on the site when Malek came to the Hoxie. Polacek remembers the Maleks had a large family with seven sons who worked the land and two daughters.

Mr. Polacek recalls a store at Hoxie for the "hands" and feels it was west of the house. He remembers the big barn that was partially underneath the ground and several other outbuildings including the blacksmith shop. He can recall cowboys still being on the ranch when he was a boy of four or five. For a time there were a great many sheep kept on the ranch and Polacek remembers an old Mexican man who stayed with the sheep day and night and even slept with them. He feels these sheep were on the ranch before the land was cleared and cultivated for growing crops.

Polacek seems to have the impression that the Hoxies and the Allisons had a fight over the ranch and "shot it out" and that after this the Hoxies moved someplace north. "When they (the Hoxies) left, well, they left all the furniture and everything in the house just like it was. Later on, when different people moved in there, as each family left they took some of the furniture with them. It was a shame how people stole stuff out of there."

Polacek spoke Czech as he was growing up and still speaks it but never learned to read and write in Czech. Mrs. Polacek, however, does read Czech which she learned at home and in the Catholic school she attended in Granger. Czech was taught through third grade but when

students reached the fourth grade they were no longer taught Czech or allowed to speak it even outside during recess. Mrs. Polacek grew up speaking both English and Czech and is disappointed her grand-children do not speak the language although they can understand some of it. Mr. Polacek went to school at Waterloo and was taught strictly in English. His only formal training in Czech was once a week when he had schooling in church.

Polacek recalls that cotton picking was done by hand during his youth. The family would pick their own cotton and then hire out to pick cotton on nearby farms. They were paid by the day for this. At one time, the rate was a dollar a day. Polacek was also a member of a crew of fourteen men that baled hay for 75¢ a day plus room and board. This was in the late 1920's. The hay was put into large haystacks and then baled into square bales. There was too much waste to leave the hay standing in the tall stacks, so it was baled. This was also a more convenient way of feeding stock. As far as Polacek remembers, he never made more than \$2.00 a day plus room and board for this type of work. During the depression, it wasn't easy to get any type of work to bring in extra money.

Mr. Polacek attended dances in the Hoxie house while the Sefcik family was living there. The youths of the area would travel as much as ten miles to attend any dance held anywhere in the vicinity. These were often wedding dances. The boys came on horseback in groups and usually went to dances without "dates". They would meet girls, who came with their parents, at the dance. Polacek remarked that if the boys couldn't find enough girls to dance with, they just stood around. There was usually some "home brew"

available at the dances. Polacek states that his family made wine out of raisins and prunes.

The Polaceks were members of the beef club that met in the Hoxie basement. The club met once a week and was going on as long as Polacek can remember. There were about forty people in the club and each contributed a yearling. Each week a different part of the meat was given out so each family would have an equal share of the good and poor cuts. A written weekly record was kept of which parts were given to which families. The Germans had their own club at Hoxie and used a different method of dividing up the meat. The Polaceks thought the German system was unfair. Usually the men went to pick up the meat. After it was brought home, it was put in a jar and put down the well in a separate bucket to keep cool. Mrs. Polacek states that meat was eaten three times a day at that time. The club continued to meet through World War II, but at some point before 1947 was moved from Hoxie to Waterloo.

The Polaceks married in 1937 and lived on a small farm near the Hoxie house. They could see the house from their land and watched from their field as it burned in 1938. Mrs. Polacek regrets that she never saw the inside of the Hoxie house. They had never visited the Sefciks there before the fire, but did visit them afterward.

Mr. Polacek had polio around 1938 and it became very difficult for the couple to maintain the work on the tenant farm they lived in at the time. Polacek could do no plowing or cultivating due to his health and Mrs. Polacek had great difficulty managing these tasks with the mule team and heavy equipment. It was difficult to get help because all

the young boys were drafted. In 1941 the Polaceks bought their first tractor—a single row—and Mr. Polacek was able to drive it. However, Mrs. Polacek still had to assist with lifting up the venters at each turn. At this time they borrowed money with the help of Mrs. Polacek's parents and bought a 52 acre farm close to Granger. In July, 1947 a new double row tractor with a power lift was bought to make the work faster and after this Polacek was able to do all the plowing by himself. That same year the couple bought 64 acres on the Hoxie Ranch and lived there until their land was bought by the Corps of Engineers for the Granger Reservoir Project.

Folklore.

Polacek is aware of numerous stories concerning gold buried on the Hoxie place. The Maleks and the Crupps and other people looked for it with metal detectors but nothing was ever found. Once a young boy named Simcek was hunting for gold at night with a metal detector and began to dig where the detector indicated metal. It turned out he was digging in a grave and, suddenly, a ghost appeared before him and hit him. This boy had dark hair and when the ghost hit him, his hair turned completely white.

Mr. Polacek has seen the ghost that haunted the Hoxie Bridge. During the '21 flood, the bridge washed out and drifted about three hundred yards from the bridge site. Prisoners were brought from Huntsville to build the bridge back up. One of these prisoners made trouble and had his head shot off on the bridge by a guard. From this time the ghost haunted the new bridge when it had been a full moon on a Friday night. Horses would refuse to cross the bridge

when the ghost was there. Only certain people could see this ghost.

Mr. Polacek saw him many times. The ghost would be sitting on the right side of the bridge as Polacek crossed back over it from the Hoxie house. It had no head and never spoke or moved. Polacek doesn't remember what year the ghost left the bridge, but it was after the priest prayed for the soul in church. The ghost was never seen again after that time.

Narrator: Mrs. G. C. (Hattie) Pope, Granger, Texas

Date: June 18, 1979

Interviewer: Roy D. Brooks

SUMMARY

Mrs. Pope, formerly Hattie Tegge, was born in 1889 in Macedonia, Texas. She is of Prussian descent and is the aunt of Clara Scarbrough, author of Land of Good Water.

Mrs. Pope related stories of her childhood as a student in the one-teacher school at Macedonia where they stressed "the three R's" and where she developed her love of poetry through weekly recitations. She later wrote a book of poems and went on to become a music teacher in the area.

Narrator: Mary D. Redwood, Victoria, Texas

Date: June 12, 1979

Interviewer: Roy D. Brooks

SUMMARY

Family History

Mrs. Redwood's father, Robert Oliver Lankford, was foreman of the Hoxie Ranch for approximately ten years. During this period, the Lankfords lived at Sunnyside.

Robert Oliver Lankford was born February 5, 1870 in Missouri.

Mrs. Redwood is not sure when he came to Texas, but knows he was in San Marcos, Texas at age twelve; this was not too long after he first came to the state. He was the eldest of four children, three boys--Robert, Lon and Ernest or "Ernie"-- and a girl--Belle. The parents died at early ages, not too long after their arrival in Texas. The sister, Belle, died when she was sixteen of tuberculosis or "galloping consumption" as it was called in those times.

Mrs. Redwood's mother was born Frances Haggard on February 28, 1872. She was always called "Fannie" or "Fan." She was from Tennessee and arrived in Texas with her family when she was twelve.

Mrs. Redwood believes her parents probably met in Kyle, Texas, because they both spoke of living in Kyle and going to dances there when they were young. Both are buried there. Mrs. Lankford died in 1944 and Mr. Lankford in 1951.

Robert O. Lankford and Frances Haggard Lankford had four children, all born in Kyle. A daughter, Ruby Troy, was born in 1890; a son,

William, known as Willie, was born in 1892; a daughter, Mary D., was born in 1894; and a son, John Walton, known as "Jack" or "J.W.," was born in 1898. The son, Willie, died as a young child.

The Lankfords moved to the Taylor area soon after Jack was born and worked for Mr. Rivers at Elm Grove. At some point, "when Jack was around two," the Lankfords moved to Taylor where Mr. Lankford had a livery stable. The older sister, Ruby, went to school in Taylor at this time. Mary D. believes she was around "four or five" when the family lived at Elm Grove and a little older in Taylor. She did not start school, however, until the family moved to Hoxie. This would make the approximate date 1901 or 1902.

Mrs. Redwood feels the family lived on the Hoxie Ranch about ten years. She believes the Hoxie family still owned the ranch when the Lankfords first came to Hoxie because Gilbert Hoxie and his brother, John Hoxie--". . . the kind of retarded one. . ." visited the ranch once or twice a year. She also states it was her impression that at some point before Mr. Allison and Mr. Welch bought the ranch they leased it from Gilbert Hoxie. There was one bedroom in the house designated for Mr. Allison to use when he came to the ranch. He came often and would stay almost a week at a time. He would always call and let the Lankfords know when he was coming out.

Mrs. Redwood is sure they left the Hoxie Ranch in 1914 before Mr. Allison was shot. She recalls still living in the house in 1912 when her sister, Ruby, married Mr. Bond. In 1914 a son, Carter, was born to Ruby. Mr. Lankford and Jack had left for Victoria, Texas shortly before this birth, but Mrs. Lankford and Mary D. stayed in

Taylor with Ruby until Carter was born and then joined Mr. Lankford and Jack in Victoria.

Jack later married Elva Buchel of Cuero, Texas. Mary D. worked in a bank for eleven years after moving to Victoria until her marriage to Jack Redwood.

Schooling at Hoxie

Mary D. and her brother, Jack, went to school in Waterloo when they lived on the Hoxie Ranch. She describes it as a two-room school with two stories, a small white building. It was four miles to the school from Hoxie and Mary D. and Jack rode to school on a half-Shetland pony named "Nellie." Mary D. and Jack lived farther away from school than any of the other children. Others who lived some distance away rode horses to school, but most children walked.

Lunches were brought to school in pails. They always came home around 4:00 P.M.

Their sister, Ruby, never attended school at Waterloo. She would room and board during the week in Taylor and attend school there. On weekends she would travel the nine miles home to Taylor. She later went to business school in Waco and worked in the bank at Taylor before her marriage to Mr. Bond.

Mary D. attended seventh grade at St. Mary's Academy at Austin but was so homesick that she refused to leave home again after her first year there and so, never finished high school.

Hoxie House and Outbuildings

Mary D. Redwood has many memories of the Hoxie House and surrounding outbuildings. She was unsure on a few details but, for the most part,

seemed quite firm in her statements.

She describes the rooms on the first floor as huge with high ceilings. Despite the fireplaces, they were hard to heat in winter because they were so large. Mrs. Redwood noted some descrepancies between her memories of the first floor plan and Martha Freeman's (1976) floor plan of the house. These are as follows: Freeman's "parlor" was used as a master bedroom by Mr. and Mrs. Lankford, the room labeled "phone room" was the parlor, and the room labeled "all purpose room" was the phone room. She states that the stairway came between the phone room and the back of the hall. This first floor stairway which came up from the main hall was beautiful. It curved and had a pretty landing. Steps were wide and shallow. There was a "cut out place" in the curved landing where a flower vase or statue could sit. Behind the stairway was a large bookcase which ran almost the full width of the hall. At the side of the bookcase was a door which opened into a small hall leading back to the porch. So, there actually were two halls, a large one and a smaller one. A beautiful coat rack stood in the large hall. From the small hall, stairs led down into the basement and up a back way to the second floor bedrooms. There was a closet in this small hall and also a small galvanized stand surrounded by wet cheescloth in which milk and butter were kept. There was an attractive lavatory in the kitchen which was arched over and set back into the wall.

The dining room contained a huge, long table. Meals were large family style, often with a variety of meats served. Some of the men working on the ranch took meals with the family in this dining room.

The phone room contained two cabinet type telephones. These were set close together on two adjoining walls in one corner of the room.

Both phones could not be used at the same time because they were so close together. One was an old phone system and the other a new system. Both were used but were on different lines. The walls inside the phone room were plaster.

The basement was large but Mrs. Redwood does not feel it extended under the entire house. This space was divided into two large rooms. The basement was entered from the stairs coming from the small hall. The stairs went down into the first room which was mainly used for meat storage. The other room was used for keeping milk and cream and churning butter. Mrs. Lankford had a large range in this room and did canning and preserving there. She occasionally did washing in this room during inclement weather, but she had a separate wash house outside and usually washed and ironed there. Mrs. Redwood does not recall a door leading to the basement from the outside of the house.

Mary D. and Jack played under the house often. Children could stand up straight under the house, but adults could not straighten up under it. She believes this space was under the porch and east side of the house only. Access was under the front porch.

There were seven bedrooms on the second floor. "Mr. Allison's room" was in the front of the house on the east side. It was a large room with lovely furniture. The only other room on the east side was a large guest room off to the right at the top of the stairs. This room was big enough to easily hold two double beds and two dressers with lots of space between. Mrs. Redwood describes the guest room furniture

as "gorgeous." On the east side of the second floor were five other bedrooms and a large bathroom. The bathroom, situated directly above the kitchen, had running water with a commode and a white enamel bathtub on legs.

The third floor contained no furniture. Although Mrs. Redwood was told it had once been a ballroom, at the time the Lankfords were at Hoxie it contained pipes and fixtures for the acetylene lighting in the house at that time.

Stairs led from the second floor to the "ballroom" and on up to the cupola. The stairway from the second floor was much narrower than the first floor stairway. At one time the cupola was used as a bedroom by Mr. Lankford's brother, Lon.

Mrs. Redwood is sure the furnishings in the house were shipped in from somewhere as they were much too fancy to have been purchased in Taylor.

Outside, there was a cistern directly behind the back porch. Two small buildings for the acetylene lights were on the west side of the hou. 'road came around the west side of the house and went between the barn and these acetylene houses. The house was fenced all the way around with a large iron gate at the end of the driveway on the front side of the house. The acetylene houses were not inside the fenced yard, but on the other side of the road to the west of the house. The barn was inside the fenced yard. Also inside the yard was the long ranch style bunkhouse with porch which Freeman (1976) describes. Redwood does not remember a ranch store or commissary. The large barn set on the side of a hill had many stalls and some saddle rooms.

There were numerous horses kept there. Northeast of the house was a tank surrounded by willow trees where Mrs. Lankford would fish for perch.

Other Residents On or Near the Ranch

Mrs. Redwood feels that at the time her father was at Hoxie it was mainly used as a cattle ranch. There were some sheep on the ranch at this time, also. The sheepherder was Johnny Woods, a Scotchman the children called Uncle Johnny. He had a room in the long ranch house and took meals with the family. This gentleman had a quite colorful past. He left a wife and children and an estate in Scotland called "Pass Ford" or "Pat's Ford" to follow to America a woman with whom he had been having an affair. How he came to Hoxie and what happened to the woman, Mrs. Redwood did not know but Woods drank a lot and slept in gutters, eventually getting rheumatism. "Uncle Johnny" had a daughter, Agnes. When his wife died in Scotland, she made Agnes promise to find her father in America and bring him back home. Agnes succeeded in finding her father and secured work as a housekeeper for the Lankfords in order to be close to him. This was to no avail, as "Uncle Johnny" would not talk to her or have anything to do with her. Agnes, an educated, lovely lady who became a good friend to Mrs. Lankford, finally left to teach college. "Uncle Johnny" was still at Hoxie when the Lankfords left, but died not too long afterwards.

A couple, Mr. and Mrs. Dib Hollerman, lived in the ranch style bunkhouse. Mr. Hollerman worked for Lankford on the ranch. Will Bland was another ranch hand.

Lon Lankford, brother of Robert Lankford, lived and worked on the

ranch occasionally, but was not a permanent ranch hand.

Neighbors included Mr. and Mrs. Presley Smith who lived three or four miles away. Mrs. Smith did sewing for Mrs. Lankford and Mary D. was friendly with their daughter, Willie Emma Smith, whose married name later became Young.

Mr. Brookshire and Mr. Bland, neighboring landowners and stockmen, were mentioned. Mr. Brookshire had a ranch north of Hoxie close to Friendship and was a state senator or congressman. His daughter, Ruth Brookshire, was also a close friend of Mary D. Lankford. Mary D. once accompanied Ruth and her father to the State Fair of Texas. They took a train from Granger to journey to the event.

Narrator: Clara Scarbrough, Georgetown, Texas

Date: January 31, 1979

Interviewer: Roy B. Brooks

SUMMARY

This interview dealt much more with the historical background of both dam sites and not specifically with the Hoxie Ranch.

There is a brief narrative concerning the Allison Community and Friendship Community, locations, history, etc.

Mrs. Scarbrough read a few notes she had on the Allisons and made one mention of the Allison-Pool feud. There is one mention of the Dyches-Beard feud.

Towards the end of the interview, Scarbrough makes the statement that some of the people who were dispossessed by the Granger Reservoir Project really didn't want to leave their land. She elaborates on this further and gives some history of the reservoir projects.

Narrator: Linda Scarbrough, Austin, Texas

Date: October 7, 1979

Interviewer: Roy D. Brooks

SUMMARY

Family History

Linda Scarbrough, born in 1934, grew up in Taylor and Georgetown. Her parents ran the Taylor Times and her mother, Clara, authored the history of Williamson County, <u>Land of Good Waters</u>. Linda researched and wrote an article for the Audubon Society concerning the impact of the dams in Williamson County.

Origins of the Dam Project

As far back as the 1930's the farmers and ranchers of Williamson County had considered the need for a dam to protect them from flood damage as experienced in 1913 and 1921. Most felt a dam upstream from Georgetown would serve this purpose well. The actual location of the dam seems to have originated through the dealings of Wilson Fox, County Democratic Chairman, and his influence on then Congressman Homer Thornberry. Fox owned land near Laneport which, according to his father's will, could only be sold under condemnation proceedings. Evidently, Fox influenced Thornberry to push for a dam project in the Laneport area sometime during the 1940's. A plan was developed and presented to the citizens at a Taylor meeting.

Opposition and alternatives were immediate to the prospect of taking so much prime agricultural land out of commission for the enor-

mous dam project. Support was garnered for an alternative plan calling for numerous small reservoirs on the tributaries. This plan, suggested by the Soil Conservation Service, would cost a fraction of the larger project, yet be just as, or more, effective as flood control and conservation as well. It did lack the recreational potential of a large lake, and would have presented more difficulty for the larger towns to tap the water supply. This plan, however, would not have been under the jurisdiction of the Corps of Engineers, and thus the loss of a potentially large project for them. Another special interest group with a stake in the project was the Georgetown business community which strongly desired a dam near Georgetown for commercial growth. Everyone seemed in agreement that Laneport was an inappropriate site for a lake, that it was too shallow and wouldn't provide flood control for Williamson County. Opposition was strong enough for Thornberry to reconsider his support and plans bogged down for several years until he retired and Jake Pickle was elected in his stead.

Development of North Fork Project

Jake Pickle seemed to favor a compromise plan of two dams, one upstream, one downstream. Later, perhaps in the early 1960's, the Corps presented a three-dam project which effectively split political opposition. The North Fork Dam satisfied the Georgetown business interests and seemed to address the problem of flood control for East Williamson County. Ms. Scarbrough believes there wasn't further opposition to the North Fork Dam because the rural people of the area may have desired a more diverse economic base. Williamson County had

been a stable, predominantly agricultural area for many years, but the assumption was that growth and diversity were necessary things. The dangers of development couldn't be readily apparent to them, i.e. how easily the quality of life is changed and lost.

Recreation on the River

Ms. Scarbrough recalled several beautifully scenic spots on the North Fork. These places, such as Crockett Gardens and the crossings were unspoiled, undeveloped, natural areas accessible to all. They possessed unique features, springs, cliffs, and plant life of great beauty. As it was then, the river was utilized by hundreds of people for swimming, picnicking, fishing, hiking, and the "finest white water canoeing in Texas" during the spring. "It was a lovely thing."

Narrator: Mr. Theo Schroeder

Rewritten from brief notes

Date: May, 1979

Interviewer: Linda Lavender

SUMMARY

Mr. Schroeder, a gentleman of eighty-nine years, seemed spry and able to recall many events of the past years. His reminiscences of the Hoxie house site were rather limited, but he was able to provide general information on the area and some specific information on farming.

Mr. Schroeder was born at Dessau, near Austin, and moved to the Hoxie area when he was nine years old (1899). His father purchased the land on which he now lives from a Mr. Race in 1913. Mr. Schroeder went to school at Turkey Creek and had always attended church at the Prince of Peace Lutheran Church at Wuthrich Hill. His wife was a daughter of C. G. Wuthrich, an associate of John R. Hoxie who purchased a part of the Hoxie land in 1910. He noted the two Wuthrich sisters who never married still live on the next farm (Scarbrough, Land of Good Water, p. 466).

As a boy, Mr. Schroeder recalled that some of the Hoxie cowboys caught wolves and kept them in pens near the house. They would "play with them and get them mad." He thought the Hoxie cowboys lived in the "Big House," which had thirty-two rooms and all heavy oak furniture. Hoxie was reputed to have had 10,000 head of cattle. Mr. Schroeder thought the house burned at 12:00 noon; and he also mentioned the large

cellar, saying that liquor was kept there.

During most of Mr. Schroeder's farming experience (and his information seems typical of the neighborhood) corn and coston were the major crops. Small amounts of maize were grown, primarily as chicken feed; however, in about 1950 maize found new markets. An advantage of growing maize over corn was that maize could be plowed at regular intervals to keep the field clean and weeds down, while the height of corn prevented cultivation past a certain point.

Average farms were small during the early part of the twentieth century, a common size being between 50 to 100 acres. One hundred fifty acres was a large farm, and 300 acres constituted a ranch. The size of most farms was determined by the animal power and human effort needed to keep the land under cultivation in the pre-tractor era. Schroeder claims to have worked with mules until the early 1960's ("15-16 years ago"). He thought the biggest and best mules came from Missouri, although he bought his from a local mule barn. Favoring the tractor, Mr. Schroeder recalled the disadvantages of mules, which might have to be fed when the farmer was in a hurry to finish his task. He also noted the haste of some farmers to catch up with their work after a long wet spell could overtake the mules, who would die in the plow harness. Good mules were expensive, selling for \$500-\$600 each.

Mr. Schroeder recounted some of his experiences. During the 1921 flood, water was so high that pigs swam into the pecan trees and got hung up there. "Fat hogs hardly ever drown," he said, noting the natural bouyance and swimming ability of these animals.

In 1925 a severe drought caused a crop failure. Mr. Schroeder

wrote to Washington to ask for assistance, as he had to borrow \$100.00 to feed his mules. A year later he received a check for \$106.00, the \$6.00 being interest on the dilatory payment. Mr. Schroeder thought he was the only one from his neighborhood who had requested help (and thought he was pretty smart for doing so).

During the depression, this family owned their own farm, lived on garden produce and ground their own corn. His daughter said they ate cornmeal mush until they were quite tired of it. They also kept chickens.

For many years the Schroeders sold Plymouth Rock chickens and their eggs. These birds weighing 5-6 lbs. were good both as layers and fryers. He lost his last chickens 2 to 3 years ago to varmits, which have proliferated now since people hunt less often. The best year for cotton, which sold at 35¢ a pound, was 1936.

Mr. Schroeder paid \$7.00 a month to send his daughters to high school in Taylor. He was the only one from his area to send his girls past the eighth grade. They had attended Waterloo School for the primary grades.

Narrators: Agnes Allison Whatley, Langdon Richter, Taylor, Texas

Rewritten from brief notes

Date: May 17, 1979

Interviewer: Roy B. Brooks, Kathleen Gilmore

SUMMARY

Mrs. Whatley, a member of the Allison family, disclosed a great deal of information about that family. She talked mainly about her family history and her girlhood home, the "Flag Springs" Hoxie house. Very little was mentioned about Sunnyside or the Hoxie Ranch. Mrs. Whatley did state that the Allison family never referred to the Hoxie house as "Sunnyside."

Discussion touched briefly on the '21 flood and Mrs. Whatley recalled it washed out several bridges including the Hoxie Bridge which was replaced with a new structure different in appearance.

During the conversation, Langdon Richter, also present, mentioned the oil boom which briefly flourished in the area. The dates on this are unclear but it seems to have been pre-1914. Many promoters came into town to purchase oil leases during this period.

Narrator: C. C. Allison and his mother Danna Allison*

Date: May 22, 1979

Interviewer: Roy Brooks

SUMMARY

The Allisons own several articles which were in the Hoxie ranch house: candelabra, lamp, a large serving bowl decorated with purple flowers, a dresser which originally went with a bedroom sutie, a chair, a leather backed probably Master's Host chair of a set of 12 dining chairs. All the dressers had keys that locked all the drawers. They also have some crystal and a tablecloth and 12 napkins which may have been used at the ranch.

In their possession is the gun which Francis Allison wore when he was working with the Mexicans on the Hoxie Ranch.

They commented that the Hoxie ranch was the entertainment center of the South where people used to come for barbecues and to go boating.

*This tape is of poor quality, and much could not be transcribed

Narrator: Arthur Barton, Susie Prewitt*

Date: May 22, 1979

Interviewer: Roy Brooks

SUMMARY

Susie Bond Prewitt's brother married Ruby Lankford. Her family was never close to any of the people who lived at Hoxie except the Lankfords. After the Lankfords left the ranch Barton commented that there were some "bad parties" out there. There was a lot of talk in town after the Hoxie house burned. Some people said someone burned it, but the truth of this is not known, according to Barton.

Mrs. Prewitt, whose sister was married to Mr. Barton, went to school with the Allisons.

*This tape is of poor quality and much could not be transcribed.

Only those items concerning the Hoxie Ranch are noted in this summary.

Narrator: Mrs. D. X. Bible

Date: June 14, 1979

Interviewer: Roy Brooks

SUMMARY

Mrs. Bible's, born in 1903, maiden name was Gilstrop. Her mother was Mary Dorothy Ellen (Molly) Robbins, who was born on February 15, 1875. Molly's parents were John Gourd Robbins and Cassandra Keel Robbins. After Cassandra's death Molly was raised by her father's brother Jacob Darel Robbins and her mother's sister Sarah Ellen Keel Robbins.

The original house they lived in near Willis Creek was moved recently, but the site will be under the lake and the upper part of the acreage will be in the overflow. The house are had a rock cistern (41WM416); the house had a red concrete sideporch. East of the house was a line of the Pedro Zarza League.

Mrs. Bible's father Clifford Gilstrop was a cowboy. He was riding cattle for Hoxie Ranch and lived just a few miles away. After he married Molly in 1891 he quit cowboying and went into business. At various times he had a livery stable, a barber shop, a meat market and others.

*This tape is of poor quality and much could not be transcribed.

Narrator: Langdon Richter*

Date: May 22, 1979

Interviewer: Roy Brooks

SUMMARY

Richter was born in Taylor, March 13, 1906. He went to work in the First National Bank in 1924. His brother, Albert, worked in the Taylor National Bank. These two banks merged in 1931. Richter became interested in the Hoxie Ranch when he was working at the bank in 1924. Francis O. Welch was president of the bank, at this time, and Ferguson Allison was running the ranch. At some point Allison had bought out "young" Hoxie, that left Allison with two-thirds (of the ranch?).

The last time Richter was in the ranch house was in 1937. Ed Sefak and a daughter, Ruth or Lilly Kotrola, were living there. He saw a building which he says was the old commissary. It was a log building and used for hay storage. He spoke about a black book, like a journal, which he knows of that a foreman, Wagner kept, but he has been unable to track it down.

*This tape is of poor quality and much could not be transcribed. Only those items concerning the Hoxie Ranch are noted in this summary.

